WORKSTATION NEWS

# MacWEEK

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# LATEST

## To bundle or not to bundle

CARLSBAD, Calif. — A month after Apple's high-profile and high-cost HyperCard celebration at Macworld Expo, two developers are preparing their arguments for a formal debate on the subject of whether or not Apple should unbundle HyperCard.

To be held here on Sept. 25, during the Agenda '89 conference sponsored by industry pundit Stewart Alsop, the debate will pit noted independent developer Dave Winer on the anti-bundling side against Marc Canter of MacroMind Inc. as the proponent of the bundling strategy.

It is acknowledged by everyone involved that Apple's support of its "software erector set" is absolutely firm and that the prospect of Apple unbundling HyperCard in the foreseeable future is dim. "Apple's com-

*See UNBUNDLE, Page 9*

## System 6.0.1 set for distribution

CUPERTINO, Calif. — Apple's System Revision 6.0.1 was frozen and sent to the duplicating house last week, said sources close to the company. Those sources have confirmed that the patched and revised system, targeted for distribution in June, went golden last Wednesday.

A two- to three-week lag between duplication and distribution would put the System 6.0.1 on the shelves before the end of the month. □

## Motorola sues Cypress, Ross

AUSTIN, Texas — Motorola Inc. last week won a preliminary injunction against Cypress Semiconductor Corp. of San Jose, Calif., and Ross Technology Inc. of Austin, Texas, accusing the two chip companies of conspiring to use trade secrets and confidential information to develop a new line of RISC processors.

Ross Technology was started less than a month ago with a seed loan of $100,000 from Cypress. Founder Roger Ross previously directed the design and development of Motorola's 88000 RISC chips. □

# '030 Mac II to kick off 'year of the CPU'

## *Report outlines eight new models*

BY JONATHAN PERROW

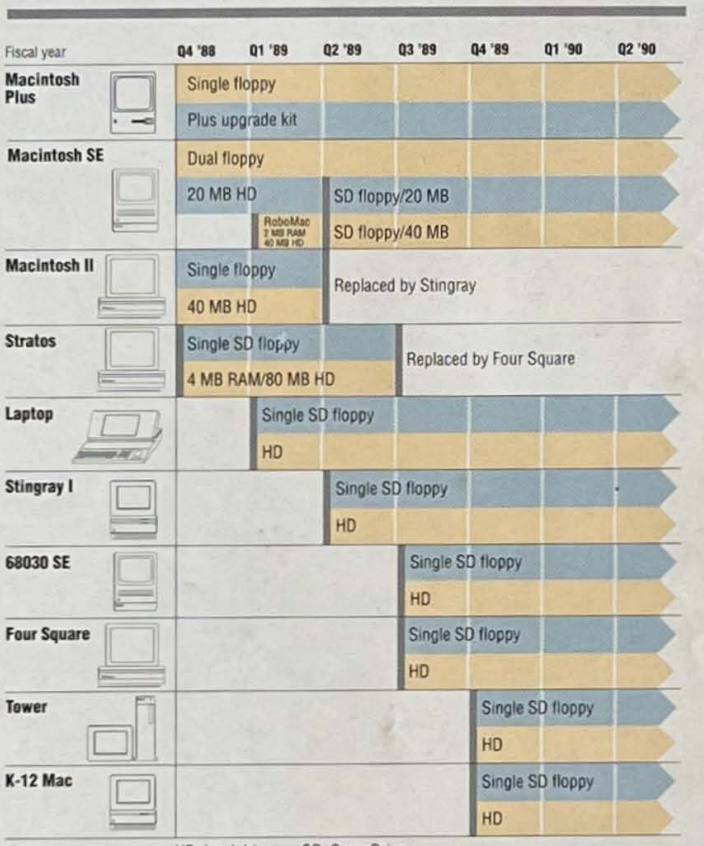
CUPERTINO, Calif. — Apple's expected introduction this month of a 16-MHz 68030-based Mac II marks the start of a string of planned CPU introductions extending into 1990, according to a confidential Apple report recently reviewed by MacWEEK.

While the timing of the introduction has not been confirmed, many sources close to the Cupertino company are convinced that Sept. 19 will be the day that Apple unveils its 68030-based SuperDrive-equipped Mac II, code named Stratos (see related story at right).

In addition to the Stratos machine, which is aimed primarily at A/UX users, seven new CPUs, including a high-performance 68030-based SE and a Mac aimed at the K-12 market are outlined in the Apple report. The Product Outlook report was issued internally at Apple early last spring.

Although Apple officials refused to comment on any new products in the company's lineup many analysts

*See APPLE, Page 8*




## *Stratos' drive outshines its '030*

BY DANIEL FARBER

CUPERTINO, Calif. — The introduction this month of a 68030-based Macintosh II will not represent a significant breakthrough in performance or functionality, according to industry observers.

While Apple will apparently score a publicity coup by beating rivals Sun Microsystems and NeXT to market with a computer built around the 68030 chip, the real importance of the new machine, code-named Stratos, is not its microprocessor but its 1.4-Mbyte IBM PC-compatible floppy SuperDrive.

The performance benefits of the '030 over the '020 aren't earth shaking, according to Steve Edelman, president of SuperMac Technology of Mountain View, Calif.

"The benefit of an '030 chip for the Macintosh would be a cost reduction, not a performance enhancement," Edelman said. "The '020 has no memory management unit, and adding a second chip for MMU support is expensive. The '030 is 10 percent to 20

*See '030, Page 9*

# Aldus readies FreeHand 2.0

BY CONNIE GUGLIELMO

SEATTLE — A major upgrade of Aldus Corp.'s 9-month-old FreeHand drawing program will premiere this week at the Seybold Desktop Publishing Conference in Santa Clara, Calif.

FreeHand 2.0, scheduled to ship before the end of the year, boasts improved text-handling capabilities and text stroking, support for the Pantone color-matching system, the ability to Undo and Redo up to 100 steps, and a new Autotrace tool that automatically converts bit-

*See FREEHAND, Page 9*

COURTESY ALDUS

**Artist Daniel Pelavin, a Mac neophyte, created this poster with FreeHand 2.0.**

# Seybold: The ins and out(put) of publishing

BY CLIFF LEHMAN

SANTA CLARA, Calif. — Gee-whiz input, fancy-pants output and oh-wow manipulation in between.

The Seybold Desktop Publishing Conference in Santa Clara, Calif., this week promises many developments in all areas of desktop publishing.

The show is bristling with new and improved possibilities from input to final output.

Here are some of the highlights.

High-end color pre-press systems continue to be blended with the Mac, producing hybrids with the advantages of both worlds.

• Not to be outdone by the Scitex Ltd. and Quark Inc. connection, Letraset USA of Paramus, N.J., will show a new version of Ready,Set,Go! that works with a color pre-press system from Crosfield Electronics Ltd. of Hemel Hempstead, England. (see story, Page 3).

• Knowledge Engineering of Greenwich, Conn., in connection with Ultre Corp. of Port Washington, N.Y., will show a new color output system, which will be available following the show for between $30,000 and $60,000.

Color System I supports 1,500 typefaces from Compugraphic Corp.'s typeface library as well as the Bitstream Inc. type library, according to the company.

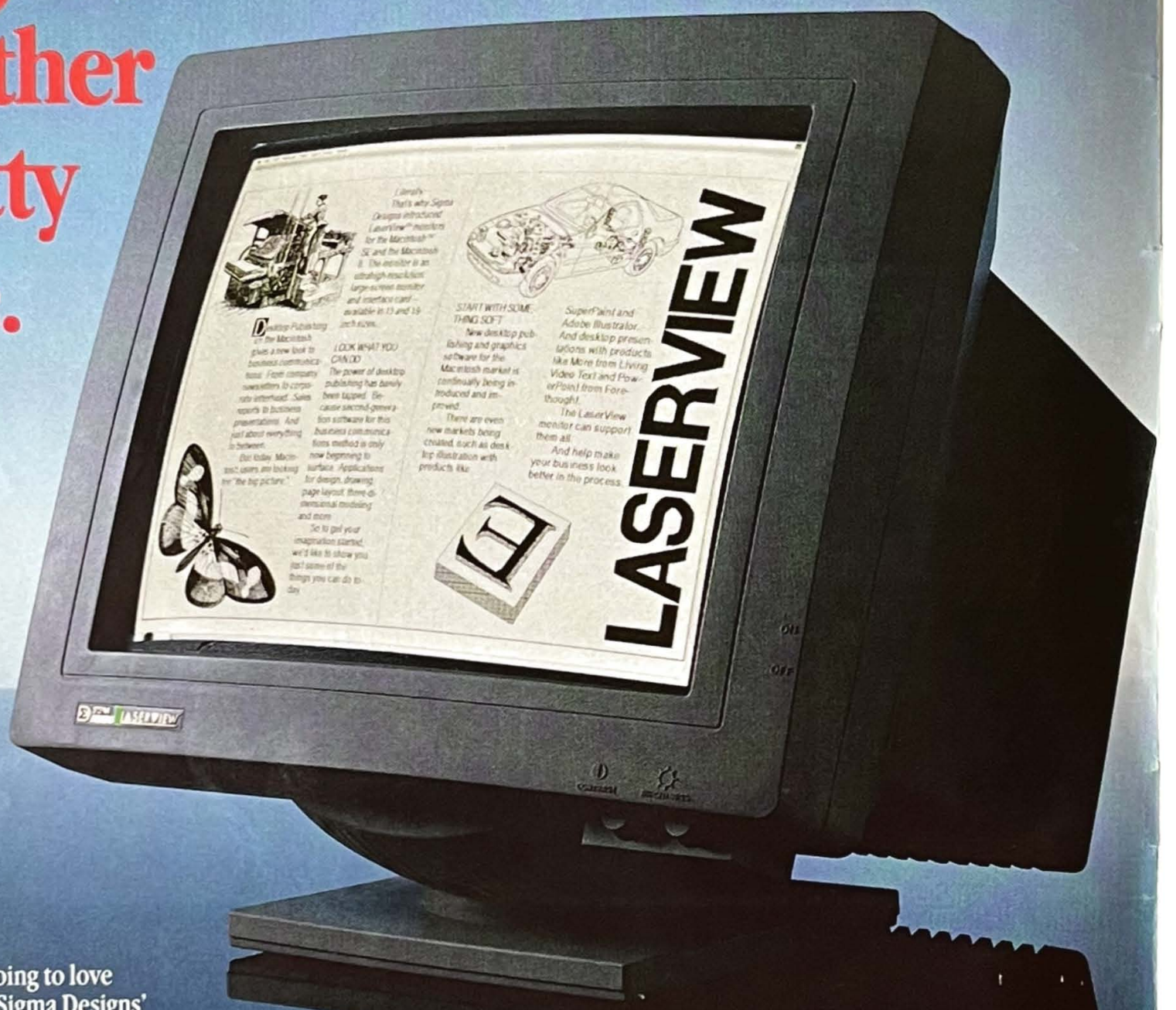
With Apple playing the laggard in

*See SEYBOLD. Page 8*

## Paint by mouse

*Studio/8 from Electronic Arts, see Real Soon, Page 6.*

# Not just another pretty face.

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S I G M A  D E S I G N S

# Letraset, Crosfield team up

## *RSG! files will translate to CPP*

BY CONNIE GUGLIELMO

PARAMUS, N.J. — Letraset USA and Crosfield Electronics Ltd. are expected to announce a joint-development agreement this week aimed at bringing high-quality color output to Macintosh-based desktop publishers.

At the Seybold Desktop Publishing Conference this week, the two companies plan to unveil a new version of Letraset's Ready,Set,Go! desktop publishing program that works with Crosfield's family of Studio electronic page-composition systems.

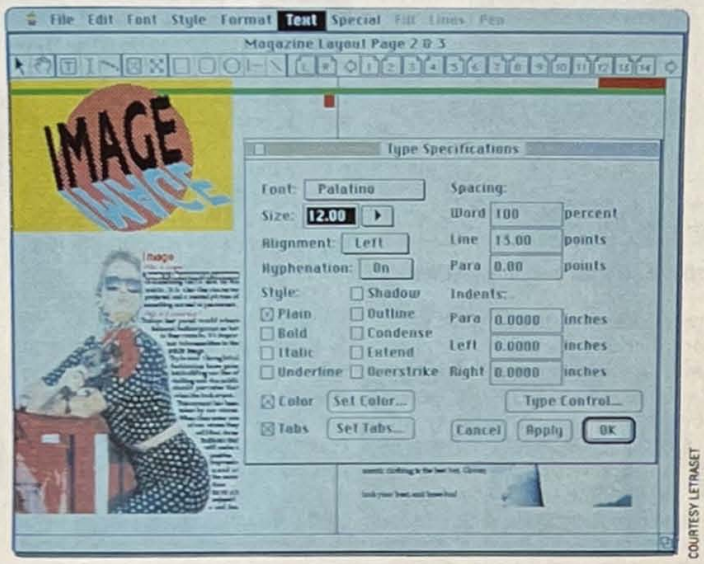
The special version will translate standard Ready,Set,Go! files from PostScript into Crosfield's proprietary CPP page format.

Crosfield, based in Hemel Hempstead, England, is one of the world's leading vendors of electronic prepress equipment. The venture was prompted in part by the release of Ready,Set,Go! Version 4.5, an enhanced version of the $495 desktop publishing package that supports the Pantone Matching System (PMS) color-selection system and offers advanced typographic control.

Once Ready,Set,Go! page-layout information is on the Crosfield Studio system, color images can be imported into the design using Crosfield's Magnascan color scanner. The page, complete with text and graphics, can then be turned into print-ready film separations.

The Letraset/Crosfield entry, tentatively scheduled for release by the end of the year, will be the third product announcement that promises to link the Mac and commercial-quality color pre-press systems.

Quark Inc. of Denver and Scitex Corp. Ltd. of Herzliyya, Israel, are readying Visionary, a software system that links Quark's XPress desktop publishing program to the Scitex Response System, one of the most widely used color pre-press systems (see MacWEEK, June 7).




COURTESY LETRASET

**Users will be able to turn Ready,Set,Go! files into film separations.**

In October, New York-based Unda Inc. plans to release an interface between the Mac and its Unda Color Design and Production System, a Sun workstation-based system used to create composites and color separations.

Letraset USA is located at 40 Eisenhower Drive, Paramus, N.J. 07653; (201) 845-6100. Crosfield Electronics Inc.'s U.S. headquarters is located at 65 Harristown Road, Glen Rock, N.J. 07542; (201) 447-5800. □

# FaxScan converts fax machines into scanners

BY EMILY BROWER

FOSTER CITY, Calif. — Developers of personal computer peripherals have discovered the versatility of facsimile technology. First they squeezed fax machines onto faxboards and into faxmodems, then they created the combination faxmodem/modem. Now MDIdeas of Foster City, Calif., has masterminded a product that turns ordinary fax machines into Mac-compatible scanners.

FaxScan, available in October for $299.95, is add-on hardware that converts any Group 2 facsimile machine and most Group 3 models into a scanner with resolutions as high as 300 dpi. The scanning software creates Tag Image File Format (TIFF) or PICT files from scanned line art.

The product also doubles as a fax-modem for receiving faxed documents directly to a Mac. The scanning and fax-receiving software run in the background under MultiFinder.

FaxScan will work with Group 3 fax machines that are compatible with Group 2 protocols. According to Mark Dain, director of engineering at MDIdeas, almost 100 percent of Group 3 machines will send to and receive from Group 2 machines.

To keep the price down, MDIdeas did not support such Group 3 features as the ability to scan gray-scale and halftone images. "Group 3 compatibility would have doubled the cost. We do have plans to come out with a Group 3 product later," Dain said.

FaxScan has one serial port for connection to the Mac and two standard RJ-11 telephone jacks, one for the dedicated phone line and the other to connect to the fax machine.

MDIdeas is located at 1163 Triton Drive, Foster City, Calif. 94409; (415) 573-0580. □

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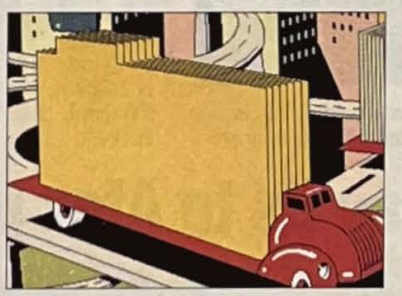

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# Modern Artist turns 2.0

BY CONNIE GUGLIELMO

PORTLAND, Ore. — Computer Friends Inc. is serious about the color market for the Macintosh II.

The Portland, Ore., company last week started shipping Modern Artist 2.0, a revamped and upgraded version of its color paint program. It carries a higher price tag — $495 — than the original program released at $199 in January, but it is loaded with a battery of new paint tools and a powerful four-color separation program.

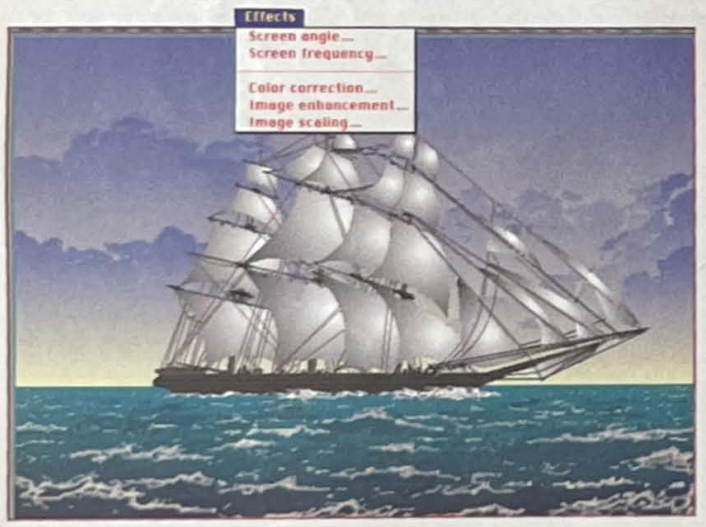
Topping the list of new features is ColorSep, a color-separation application that converts color paint files into one or more PostScript halftone images. Three types of separations can be generated: Proof, a gray-scale image; a three-color separation offering a cyan, yellow and magenta (CYM) rendering of the image; and a four-color separation providing a cyan, yellow and magenta rendering of the image with black enhancements (CYMK).

ColorSep offers controls for undercolor and gray color removal, global image enhancement and color correction, and adjustments for the screen angle for each page. Separated pages can be sent directly from the Mac II to any laser printer that is PostScript- and AppleTalk-compatible.

Computer Friends also has invested development time in Modern Artists' expanded palette of tools. Users can choose between two color modes. The standard mode displays 256 colors on screen. In expert mode, users see a dithered display of up to 16.8 million colors. The company has developed a proprietary dithering algorithm that, in expert mode, provides a sophisticated blend of colors that lets users create images with complex lighting and shading.

MICHAEL JAY

**Modern Artist 2.0 began shipping last week.**




ARTWORK BY BEN ADAMS © 1988 COMPUTER FRIENDS

**This picture, created by artist Ben Adams using Modern Artist 2.0, is ready for separation with ColorSep, a utility included with the program.**

In addition to 3-D tools that can be used to generate sphere and cubic patterns, Modern Artist 2.0 offers improved color selection and color blending tools. An enhanced version of the Wet Painting function lets users select a brush shape and mix colors on the brush with the colors already on the canvas. Users can choose from 18 standard color brushes or create new brushes.

For testing color effects, the program contains an improved Stain tool that lets users select any area and change occurrences of one color to any other color.

Modern Artist 2.0 requires a Mac II with eight-bit graphics card and color monitor. Running ColorSep requires at least 2 Mbytes of RAM.

Computer Friends Inc. is located at 14250 N.W. Science Park Drive, Portland, Ore. 97229; (503) 626-2291. □

# OCR product sent to discover the New World

BY CONNIE GUGLIELMO

BARCELONA, Spain — Juan Ignasi Martinez is confident that his company, Ciéncial i Tecnologia Aplicada S.A., is going to make it big in the United States.

Under Martinez' guidance, CTA this week will introduce its first Macintosh product in the United States at the Seybold Desktop Publishing Conference in Santa Clara, Calif. Although it has been developing Mac products for European markets since it was founded in 1985, CTA of Barcelona, Spain, decided to make its entry into the U.S. Mac market with TextPert, an optical page character-recognition (OCR) product.

"This year the market for OCR will grow a lot, with maybe 300,000 to 400,000 packages sold," Martinez said. "I think more companies are starting to position scanners as data-entry units rather than image-processing units. A good OCR package that can read forms and many languages can be very profitable. That is why we are in the market."

Available in Europe as TextScan since 1986, TextPert boasts a 99.5-percent rate of accuracy and an installed base of more than 1,000 users, including the Vatican.

"[The Vatican] has mixed-language problems. Church documentation is international. It is written in many languages and also using many different printing methods," said Martinez. "[The Vatican] needs a product that covers all that."

Described as an expert text reader (ETR) employing artificial intelligence, the $995 TextPert can be trained to read an unlimited number of fonts and typestyles, ranging in size from four points to 72 points. The package is pre-trained for more than 200 fonts. Training time for new typefaces is less than 15 minutes, said Martinez.

The packages can read any Indo-European language, with six versions already on the market: English, Spanish, Italian, German, French and Swedish. According to Martinez, CTA is working with Apple Greece to train the program to read Greek.

TextPert can automatically or manually define columns, with editing commands for cutting, copying, pasting and deleting text. Users can save the column formats, as well as tabulations for transferring scanned data directly into spreadsheets.

The program also will recognize details such as hyphens and adjust for scans angled up to 25 degrees. Recognition speeds average 500 characters per minute on a Mac SE with 1 Mbyte of RAM but may be as fast as 1,500 characters per minute on a Mac II.

Designed to work with any Mac scanner, TextPert will ship with built-in drivers for the scanners from Apple, Hewlett-Packard, Abaton Technology, Microtek Labs and AGFA.

CTA is not the only company to see the potential for OCR packages. In August, Apple gave its enthusiastic endorsement to OmniPage, a $795 page-recognition package developed by Caere Corp. of Los Gatos, Calif., for the Mac II.

The program was hailed by industry analysts as a technological breakthrough, with Jim Cavuoto, editor of MicroPublishing Report, noting that similar OCR capabilities have only been available to date in dedicated systems ranging in cost from $40,000 to $50,000.

Caere will ship the Mac product as well as introduce a PC version of OmniPage at Seybold.

Inovatic will demonstrate its new ReadStar II program, a low-level $995 OCR package. According to the Arlington, Va., company, recognition speeds range up to a maximum 4,500 characters per minute, with an average accuracy rate of 99.9 percent.

An advanced version of the program, ReadStar II Plus, is also available. The $4,500 program reads typewritten and typeset characters at constant or proportional spacing, including kerned characters, boldface, italics, foreign language and non-conventional characters.

Version 2.0 of Olduvai's Read-It! OCR software also will be shown. The $395 package can be trained to recognize new typefaces in less than 15 minutes. It boasts a 99-percent accuracy rate and will ship in October, according to the Miami-based company (see MacWEEK, May 10).

CTA's U.S. division is at 866 Second Ave., New York, N.Y. 10017; (212) 759-6201. Caere is at 100 Cooper Court, Los Gatos, Calif., 95030; (408) 395-700. Inovatic is at 1911 N. Fort Meyer Drive, Suite 708, Arlington, Va. 22209; (703) 522-3053. Olduvai is at 7520 Red Road, Suite A, South Miami, Fla. 33143; (305) 665-4665. □

# NewsLink ties Mac IIs to Atex publishing systems

BY ROBERT VIRKUS

SANTA CLARA, Calif. — Compatible Systems Engineering is supplying the missing link in the integration of Macs into Atex-based publishing operations. NewsLink, a new text-editing and editorial-management product from the Annandale, Va., company, ties a Mac II to an Atex host by supporting Atex-compatible character sets, headers and keyboard sequences. The software will be introduced this week here at the Seybold Desktop Publishing Conference.

According to Larry Spevak, president of CSE, "NewsLink was a project that Gannett newspapers asked us to develop. Apple found out about it and lent its full support. Apple and Gannett have purchased enough preliminary samples of the software to justify our development."

Atex from Atex Inc. of Bedford, Mass., is an editorial and composition system used by numerous magazines and newspapers, including Newsweek, Time, BusinessWeek, The New York Times and the Daily News. Atex can be credited for setting the hyphenation and justification (H&J) standard for the publishing industry. Software publishers are trying to emulate the Atex standard, industry observers have said.

The program features built-in asynchronous communications capable of transmitting all 256 ASCII characters, data translation and user-definable tables for emulating any environment. It will be file-compatible with XyWrite, Microsoft Word and MacWrite, Spevak said.

Although NewsLink currently lacks such high-end word-processing features as a spelling checker, footnotes and style sheets, he said the program's speed, communications capabilities, and configurable interface would give it a market as a "generic word processor" even among users who don't need to connect to an Atex system. Future versions would be much enhanced, he said.

Besides basic word processing functions, NewsLink enables text files to be coded using embedded Atex formatting codes. When NewsLink transmits a file, the Atex host performs hyphenation and justification and allows the editorial workstation to retrieve H&J text for use in pagination.

A totally proprietary software and hardware minicomputer-based system, Atex uses dedicated terminals. Third-party vendors have offered MS-DOS links, and Atex itself recently announced its own MS-DOS link based on XyWrite III Plus, a word processor from XyQuest Inc., also of Bedford, that sports an Atex-derived interface. NewsLink is the first Macintosh-based product providing full Atex compatibility.

One of Atex's limitations when working with the Macintosh has been that it can accept only ASCII files. Since files from the major Macintosh word processors lose their formatting information when saved in text-only format, they have to be re-coded once inside Atex. NewsLink will transmit the necessary font and composition codes to overcome this problem.

NewsLink is designed to run on either a network or on a stand-alone workstation. The network version incorporates the copy flow management functions that CSE has developed for its MS-DOS-based PC EditNet systems. These functions are designed to improve copy flow through the entire production cycle from copy writer to final production editor.

CSE products include PC EditNet for PC-based editorial networks; PageSpec, a page-layout program; PC Page pagination software; and PageProof for proofing. PageSpec interfaces with a variety of composition systems, including Atex, MagnaType, Lightspeed Color Layout System, Crosfield and Scitex production systems.

CSE expects to have NewsLink in release form by mid-October, with a price in the $500 to $700 range.

Compatible Systems Engineering Inc. is located at 7630 Little River Turnpike, Suite 216, Annandale, Va. 22003; (703) 941-0917. □

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# New LaserPaint more Mac-like

## *Color update to ship this week*

BY LASLO VESPREMI

SAN RAFAEL, Calif. — A major update of LaserPaint Color II seems to answer the prayers of high-end users who asked for a color paint program with better image control and greater support for scanned color images. Version 1.9, due to ship this week from LaserWare Inc. of San Rafael, Calif., also features a new manual, speedier separation and improved line art tools.

The upgrade eliminates many of the non-Mac-like features that plagued earlier versions of the program. "In 1.9, the only unusual thing left is the way the icons look," said Isaac Goff, president of LaserWare.

"In developing the program, we also shifted our emphasis from supporting all publishing needs to focusing more on the hardware and to offering support for as many scanners and color printers as we could," Goff said. "LaserPaint II has and will retain the modules to facilitate the creation of documents with advanced features otherwise available only separately and in high-end, page-layout illustration and paint programs.

**LaserPaint Color II takes you from original art to four-color separations.**

"Due to the interest that our customers have shown in our color editing and separation capabilities, we focused, of course, on that aspect first."

One of the innovations is a feature that allows the user to merge scanned images into one image. Normally, importing a second image with a different color look-up table would alter the color of the entire picture, but LaserWare said that its programmers have found a way to eliminate this problem.

Also unique to the program is the fact that any drawing tool, including a new Freehand tool, can be turned into a selection tool. This gives users more precise means to select and outline parts of an image.

Other additions include a new Zoom tool, improved ways to size photos via several dialog boxes to set x, y resolution and gamma correction for video output. Scanners supported by the program now include Sharp Electronic Corp.'s JX-450 and JX-300 color scanners and Howtek's ScanMaster 35mm slide scanner. Black-and-white and color QuickCapture video boards from Data Translation also are supported.

Output is possible on all PostScript printers, including the QMS ColorScript 100, and on some QuickDraw printers, like the Tektronix 300-dpi Color Image Printer.

Current LaserPaint owners will receive Version 1.9 free, along with a substantial new manual.

LaserWare Inc. can be reached at P.O. Box 668, San Rafael, Calif. 94915; (415) 453-9500. □

# Studio/8 challenges popular paint programs

BY ROBIN WEBSTER

Remarkable as the early microcomputer paint programs were, many artists found it hard to overcome the feeling that using a mouse to paint was like using a rock to write.

One company that moved quickly to overcome this difficulty was Electronic Arts, which developed popular paint programs such as Deluxe Paint II for the IBM PC, Apple IIGS and Amiga systems.

Now, with the introduction of the trendily named Studio/8, some of the same artist-friendly features have come to the Mac, challenging such programs as PixelPaint from SuperMac Technology, Modern Artist from Computer Friends and LaserPaint from LaserWare.

**REAL SOON**

While PixelPaint was the first kid on the block to offer snazzy color paint effects, Electronic Arts has claimed that Studio/8 offers a more intuitive interface and is backed up by its own horde of customizable features.

Due to be released by press time, the $495 Studio/8 features some elegant solutions to the old how-to-paint-with-a-mouse problem as well as some additional goodies.

For example, any part of an image can be selected and turned into a custom paintbrush, and up to eight brushes are remembered by the program. As in PixelPaint and Modern Artist, images can be tinted, smoothed, smeared and blended. In addition, Studio/8 can mask specific image areas in a fashion similar to Adobe's Illustrator 88.

Fully styled and colored text can be created within a resizable text box; once you click outside the box, however, the text becomes just another group of dots on screen.

To do all this in up to 256 colors requires a hard disk drive, a minimum of 2 Mbytes of RAM and at least an eight-bit video card. Since files of 250 Kbytes to 300 Kbytes are not unusual, you'll also need at least 2 Mbytes of free disk space to cope with the temporary files that Studio/8 creates. Although these may seem like expensive hardware requirements, it is fair to say that anyone serious about creating color images on a Mac II probably has this kind of setup.

COURTESY ELECTRONIC ARTS

**Studio/8 offers a more intuitive interface than PixelPaint and is backed up by a horde of customizable features.**

At first glance, Studio/8's user interface is not that remarkable, but things get interesting when you start clicking. In addition to the usual palette tools there are nine pop-up menus called tool modifiers.

Tool modifiers alter the way standard painting tools operate. A simple example involves the three standard selection tools. All initially act like the Lasso in that they don't include empty space around objects. For example, the rectangular selection marquee can be used to select a circle. By using options in the Shrink/Expand tool modifier, the same selection tools can be adjusted to highlight exactly what you enclose or only those foreground or background colors that you specify. Thus, you can make very precise selections without having to move the mouse with one-pixel accuracy — although this, too, is definitely a possibility with the full eight-times screen-magnification option.

The other eight tool modifiers dictate whether images will be drawn as solid or tinted (semi-transparent) objects; whether shapes will have a fill color and/or a black outline; and whether shapes will be filled with linear or radial gradients.

Studio/8's Draft Page option also creates the need for a substantial amount of memory and free hard disk space. The draft page is a work area where you can freely experiment with ideas without affecting your main document. This extra "page" can take up a lot of room and will be stored on disk when not enough RAM is available to hold the image.

Because Studio/8's power is less obvious, there doesn't seem to be a tremendous difference between Studio/8 and competitors like PixelPaint. Rather than working on a few "show-stoppers," Electronic Arts has spent time incorporating many small but important elements. Also, drawing with large brushes is less "jumpy" than in PixelPaint. It's only when you try to use large brushes in combination with special effects that things slow down appreciably.

Another nice feature appears when you select the name of a Studio/8 document in the Open dialog box: You are presented with a miniature version of the document in full color. This feature saves you from loading a large file before seeing what it contains.

If there is a show-stopper in Studio/8, it's a separate utility called Gallery. This low-power desktop presentation utility displays images in sequence as if they were slides in a carousel projector. There are even transitional video effects available, such as fades, dissolves, wipes and venetian blinds.

If the key to Studio/8's success lies in its acceptance by the professional artist, and if acceptance by artists depends on how closely an application can mimic and extend real-world techniques, then Studio/8 goes a long way toward turning the mouse into a powerful artistic tool. □

## FOR THE RECORD

The phone number listed in the Sept. 6 issue for Virginia Systems Software of Midlothian, Va., was incorrect. The correct number is (804) 739-3200.

The Sept. 6 issue also reported in error that Varityper of East Hanover, N.J., is readying a PostScript clone version of its Model 4300 typesetter. In fact, the company is readying an Adobe PostScript version.

The photo accompanying the Business Watch story on Access Technology in the Aug. 30 issue was misindentified. Company President Al Klutchman is pictured.

The phone number listed in the Aug. 23 issue for QMS Inc. was incorrect. The correct number is (205) 633-4300. □

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# APPLE

*Continued from Page 1*

and users have been clamoring for a Mac II with a smaller footprint.

According to the report, Stingray, a lower-cost version of the II with three NuBus slots, a 68030 processor and a 68882 math coprocessor is set for introduction early next year. Production of the original II will stop when Stingray is introduced, the report said, while Stratos will be available until a second-generation Mac II is introduced by mid-year. The report also shows the life of the Plus extending through 1990.

A high-performance 68030-based SE, with power comparable to the Mac II, is also scheduled for introduction in the third fiscal quarter of 1989. Apple is considering a logic board upgrade for SE owners, the report said.

The introduction of the long-awaited laptop Mac is fixed in the report for the fourth fiscal quarter of 1988, ending for Apple on Sept. 30. Most analysts, however, do not expect to see the laptop introduced soon, due to availability problems with its active-matrix display and DRAM.

According to the Apple report, the portable Mac is outfitted with a 16-MHz 68000 processor and has a "SlimCard interface" for use with credit card–size SLIM cards that can be configured either as RAM or as storage devices. By late 1989, MultiFinder, HyperCard and possibly Claris software may be available in ROM versions of the SLIM cards.

Also in the works for the third fiscal quarter of 1989 is the next-generation, high-performance Mac II, code-named Four Square, that will feature enhanced multitasking support, a 20-MHz 68030 and custom I/O chips.

A floor-standing tower Mac, scheduled for introduction in the fourth fiscal quarter of 1989, supports "an increased range of mass-storage devices, enhanced system security and minimizes desktop footprint," the report said.

Nor has Apple turned its back on the education market. Plans call for a low-cost color Mac that "uniquely supports K-12 consumer needs" with a 16-MHz 68020 processor, a socket for a 68030 and an optional 15-inch full-page display.

According to sources, the introduction dates listed in the Apple report are optimistic. In addition, to be fully exploited by applications Stratos, Stingray and the laptop require the yet-unreleased System 7.0, which may not arrive until well into next year. □

# SEYBOLD

*Continued from Page 1*

QuickDraw improvements, two developers have zipped to the front with QuickDraw-based device drivers.

• Cricket Software of Malvern, Pa., will announce a development program to turn its Expressions driver into a generalized device driver, which the company expects to ship sometime in the fourth quarter, according to Barry Schuler, Cricket CEO.

The QuickDraw-based driver, which uses outline fonts and technology from URW of Hamburg, Germany, allows users to output to color devices as well as black and white. Expressions will be licensed to output device manufacturers, Schuler said.

• Eager to make itself known as an alternative to Cricket for the development of QuickDraw-based device drivers, Palomar Software of Oceanside, Calif., will make an announcement with Mirus Corp. of Los Altos, Calif., and URW of Hamburg, Germany. Palomar has had a QuickDraw driver for some time and is expected to announce the acquisition of outline font technology.

• Cricket, feeling the pressure from other presentation packages, also will announce a new version of its desktop presentation package, Cricket Presents... 2.0, which is due to ship in the fourth quarter and will be offered free to owners of the current release, adds a spelling checker, thesaurus, kerning, full color ramping and the ability to import SYLK-format spreadsheet files directly into the program's graphing facility.

• Illustrators will be happy to see Aldus Corp. demonstrating Aldus FreeHand 2.0, which is scheduled to ship by the end of the year. (see story, Page 1).

• Odesta Corp., publisher of the Helix series of databases, will introduce a new series of work-group management tools for Mac and VAX networks at a joint press conference with Apple and DEC.

Stuart Cooke, director of marketing communications at the Northbrook, Ill., company, described it as a "major new product line that tracks, coordinates and controls the flow of work to meet organizational goals." Cooke added that the product would be of special interest to people in electronic publishing.

• Siemens Corp. of West Germany and Iselin, N.J., plans to introduce two gray-scale scanners, 400- and 800-dpi models for the SE and II. Both scanners support 64 levels of gray.

• A Spanish company will introduce its Mac product into the United States for the first time this week, with the introduction of a $995 optical character-recognition package that the developer claims is 99.5 percent accurate (see story, Page 4).

• Adobe Systems Inc. of Mountain View, Calif., will announce 13 new typeface packages, boosting its type library to 69 packages.

Much ado will be made over the many PostScript and PostScript clone typesetters being shown off at the conference.

• Linotype Inc. of Hauppauge, N.Y., long the lone player in the PostScript typesetter market, will introduce the Linotronic 200P, which will take the place of its Linotronic 100 at the lower end of its line of typesetters. The L200 is scheduled to ship this week.

The new typesetter will come in two configurations. One has a 20-Mbyte hard disk and will cost $28,950. The other has an 80-Mbyte hard disk and will cost $34,950, according to company representatives. Both versions will provide output in resolutions of 635, 846 and 1,270 dpi. The 80-Mbyte version will also produce output of 1,693 dpi. At 1,270 dpi, the L200 outputs at 7.9 inches per minute compared with 14 inches per minute on the L300.

But Linotype finally will be facing competition from other major typesetter vendors as other manufacturers introduce and demonstrate PostScript and PostScript clone typesetters at the show.

• Varityper Inc. of East Hanover, N.J., will introduce two new Adobe PostScript versions of its 4300 Imagesetter. The 4300P and 4200P use Adobe Systems Inc.'s newest version of PostScript on the Atlas-Plus raster image processor. The new typesetters will ship in the first quarter of 1989, but prices have not been set. The 4300P produces 1,200-dpi output at 20 inches per minute and 2,400-dpi output at 10 inches per minute. The 4200P produces 1,200 dpi output at 15 inches per minute, according to the company.

Varityper also will make available an option that allows existing owners of 4300 typesetters to upgrade to the 4300P and buyers of the 4200P to later upgrade to the 4300P.

• Monotype Inc. of Elkgrove Village, Ill., will be demonstrating a PostScript alternative for its line of typesetters. Called the Monotype PostScript RIP, the product can be used with the company's Lasercomp series of five typesetters.

The PostScript RIP will cost $19,500 and is scheduled to ship next January 1989, according to the company. The typesetters themselves range in price from $69,500 to $145,000 depending on resolution and features.

All of the typesetters come with the Monotype Command Language as the standard RIP. The addition of the PostScript RIP allows users to switch between the two languages and use both companies' type libraries. The PostScript RIP is based on Adobe's Atlas RIP and comes with an 80-Mbyte hard disk.

Because the system uses both languages, users will have access to the Adobe type library as well as Monotype's library.

PostScript clone typesetters also will be showing off their wares at Seybold.

• Itek Graphix Inc. of Nashua, N.H., will show its new typesetter, the IGX 7000 PS.

Based on the PostScript clone from RIPS (Raster Image Processor Systems) of Boulder, Colo., the typesetter is priced at $39,995, 40 percent less than the industry leading Linotronic 300 from Linotype. The Itek typesetter will ship this fall, according to ITEK.

• The BirmySetter from Birmy of Miami, will also be shown this week. This typesetter is also based on RIPS' PostScript clone running on one of the HyperScript family of RISC chips from Weitek Corp. of Sunnyvale, Calif.

Pricing and precise shipping dates were not available at press time. □

# UNBUNDLE

*Continued from Page 1*

mitment to this as a strategic product is as strong as I've ever seen it," said Charlie Jackson, president of both Silicon Beach Software of San Diego and the Macintosh Vendors Association. Jackson comes down in favor of bundling HyperCard despite his past opposition to the bundling of MacPaint.

But Winer, well-known as the founder of Living Videotext, said he believes that a year into the HyperCard era is a good time to open a discussion of the bundling dilemma. "My hope is to get lots of people asking questions and maybe to change the conventional wisdom," he said.

The subject is a touchy one. Even broaching the question tends to elicit answers ranging from anger to complete dismissal to fear. Winer is not the only well-known voice in the Mac industry to have said that HyperCard should be unbundled, but he is one of few to express the idea publicly. Given the strength of Apple's public commitment to HyperCard as part of its operating environment strategy, others keep such sentiments to themselves.

The position that Winer plans to take is that the bundling decision may have been appropriate a year ago, but now "it's time to move it out of the way." He repeated the well-rehearsed arguments that bundling software paid for with money from hardware margins is unfair competition for developers. As one example against HyperCard being bundled, Winer said he is aware of an unnamed company that put off the release of a "Super Sidekick-like product" because of HyperCard's widespread use as a Rolodex tool.

"Look at the long list of word processors and paint programs that wouldn't be out there if [Apple] hadn't unbundled MacWrite and MacPaint," Winer said.

Another complaint is that a real software company could do a better job of updating and supporting the product. But HyperCard's pioneering nature, Winer added, dampens the inspiration of the developer community to innovate. "It's controlling the leading edge. In a lot of people's minds, it's innovation embodied," said Winer, who also said he believes that this impression leads to developer lethargy.

ACIUS President Guy Kawasaki, who championed the unbundling of MacPaint and MacWrite while at Apple, recently proposed that Apple should turn HyperCard over to Claris (see MacWEEK, Aug. 2).

Marc Canter was chosen as the counter to Winer because his product, VideoWorks Interactive, competes with HyperCard. He calls his product a high-end HyperCard, but said he sees the bundling as a plus for business because it educates the market to the benefits of multimedia and authoring systems.

Canter applauded the provision of a standardized language for the Mac. "Unless you have hypermedia as a part of the main device, how can you link everything together?" said the ever multimedia-conscious Canter. He attributed objections to jealousy and a lack of understanding of HyperCard.

Bill Nisen, president of OWL International, the Bellevue, Wash., company that markets the hypertext product Guide, agreed that Apple has helped to make the market sensitive to the hypertext category. Though Guide was initially hurt by HyperCard's introduction, Nisen said that its presence now helps, especially since it scares other hypertext competitors away.

"[Bundling] does limit the end user's ability to choose. ... But it's a technology in advance of the marketplace," Nisen said.

But Nisen admitted that his predecessor at OWL, Alan Boyd, felt "victimized" by HyperCard. Bill Appleton, creator of the 1984 hypermedia authoring system WorldBuilder and of Symmetry Corp.'s HyperDA, accused Apple of "not having the guts to compete in the market like everybody else. Ask Apple how it would feel if one of the other vendors started giving away a computer."

The unbundling arguments, however, are made moot by the fact that if Apple did decide to unbundle HyperCard, the rights to the software revert to Bill Atkinson, who has sworn his intention to give away his software erector set with or without Apple. But an ongoing discussion of the issue may prompt Apple to clarify exactly what its HyperCard strategy is all about.

Alsop, who put the debate on Agenda '89's schedule and who had originally planned to participate himself, boiled the issue down to "the basic question of where you draw the line between system and application software.

"When Apple introduced HyperCard," he said, "it made a very explicit and very public attempt to redefine what system software is."

The intent was to give the Mac a definable advantage in response to the coming of OS/2 and Presentation Manager, with the eventual goal of implementing elements such as HyperTalk in the Mac ROM, according to Alsop. Many HyperCard observers have agreed that elements of the software will be merged with the Finder at some point.

Whether or not HyperCard is Apple's answer to OS/2, it is important as one of the first products from Apple that doesn't have its roots in Steve Jobs' tenure at the company. Even more than the Mac II and SE, HyperCard is a product that bears the influence of John Sculley's vision of the future, and to some its fate may be a symbol of Apple's new direction.

And in the end most users seem to agree that they want HyperCard in the box. Responses vary from the relatively listless "Well, it's nice to have it thrown in," to "It should actually be sent out to every household in the country." Few users, however, seem to buy the argument that they are hurt by its inclusion. Of course, many users would still like to see MacPaint in the box, too.

"Unbundling it isn't going to make it go away. I don't think HyperCard is the last word, but if you unbundle it, the user is going to get hurt," said Scott Shwarts of Symmetry Corp., which makes the Acta outliner and HyperDA. — *By Clair Whitmer* □

# '030

*Continued from Page 1*

percent faster, but unless the speed is enhanced by a factor of 50 percent to 200 percent, people won't notice."

A/UX users need memory management to run the multitasking UNIX operating system, but Apple has been providing the necessary extra chip with the purchase of the A/UX system. Other Mac users will have to wait until Apple ships its own mulitasking operating system, which is scheduled for mid-1989, to take real advantage of the '030. By that time, buyers will have a wider choice of Apple '030 machines.

On the other hand, the SuperDrive has capabilities that will immediately benefit most Mac users.

The larger storage capacity brings the Macintosh up to the level long since reached by IBM's PS/2 models, while the SuperDrive's ability to read disks formatted on PCs will provide a convenient new option for users in multivendor environments who need to bring DOS files to the Mac.

The introduction of a 1.4-Mbyte drive could be a boon to Apple's sales efforts, said Ashok Jain, publisher of Macintosh Market Report in Irvine, Calif. "If Apple introduced such a drive, it would bring the Mac more in line with the rest of the industry and make the Macintosh more attractive to people who have their data stored in non-Macintosh format," he said. □

# FREEHAND

*Continued from Page 1*

mapped graphics into line art.

"We think we have made the program significantly more powerful and closer in look and feel to PageMaker," said Mike Solomon, vice president of sales and marketing for the Seattle-based company.

In addition to a more refined user interface, other features carried over from PageMaker, Aldus' desktop publishing program, include an image-enhancement function for adjusting the brightness and contrast of images on-screen, non-printing ruler guides and a PageMaker-like Place command for automatically positioning graphics.

New text functions include automatic kerning and the ability to place text on any path, including curved lines. FreeHand users also can mix type, sizes, fonts, styles and colors within a text block, and format multiple text blocks simultaneously.

Depending on the amount of RAM, users can undo and redo up to 100 steps. With the minimum 1 Mbyte of RAM required to run the program, users may Undo between eight and 20 steps, said Deirdre Devlin, product marketing manager for FreeHand.

Version 2.0 contains a more powerful freehand drawing tool that lets users erase parts of the image by retracing over the drawing.

With the new Autotrace tool, users draw a box around all or part of a bit-mapped graphic to be converted into a draw-based object, complete with Bezier curves.

Users also can now open and edit PICT files as well as TIFF files, Devlin said. Other new features include patterned and custom fills and the ability to blend one object or color into another in user-defined increments.

Although Aldus helped define the new features, Solomon said the bulk of Version 2.0 development was done by Altsys Corp., the Plano, Texas, company that created FreeHand and then sold the marketing rights to Aldus.

Like the original release, Version 2.0 will retail for $495. Current FreeHand owners can upgrade for $85; users who purchase the program after the Sept. 14 product introduction date can upgrade for $25.

Aldus Corp. is located at 411 First Ave. S., Seattle, Wash. 98104; (206) 622-5500. □


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# Signal-processing system debuts

## *Card analyzes data in real time*

BY WILL McCLATCHY

SUNNYVALE, Calif. — Announcing the first floating-point signal processing system for the Mac, Spectral Innovations Inc. last week introduced a Mac II board and software system called MacDSP.

The system is designed to be used in scientific laboratories and "anywhere people are analyzing signal data," said Bryan Finkel, vice president of Spectral.

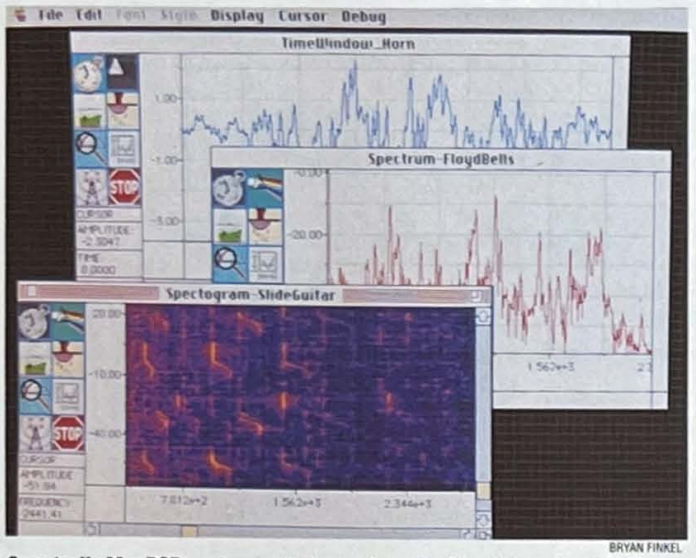
It consists of a floating-point accelerator card built around the AT&T DSP32 floating-point signal processing chip; a plug-in data-acquisition card; and signal-processing and display software.

"The power of the card is in analyzing the data in real time and not having to wait to see the results," Finkel said.

"Our system does three things," he said. "It acquires data; it processes it in real time; and it displays in real time. Nobody else can do all three things. We call it a fully integrated workstation."

With most signal-processing systems, Finkel said, users spend several minutes filtering the data after acquiring it, a time-consuming and confusing task. MacDSP, however, acquires data at up to 125 kHz, buffers it in 64 Kbytes of static RAM, operates on it with a variety of processing functions, and interactively displays the results in real time. The card takes advantage of the Mac II's high-resolution graphics and color but uses AT&T's DSP32 chip to accelerate the display.

The data-acquisition card, a daughterboard that attaches directly to the single-slot MacDSP NuBus card, is a 16-bit analog-to-digital and digital-to-analog card with software-programmable gain and input and output anti-aliasing filters.




BRYAN FINKEL

**Spectral's MacDSP system, which consists of a Mac II board and software, acquires data and processes and displays it in real time.**

The board is available immediately at speeds of 8 or 12 Mflops, priced at $2,249 and $2,745, respectively. A 25-Mflop version using a forthcoming version of the AT&T chip is under development and will be available when the chip is released, probably in December, according to Finkel. That version of MacDSP will be priced at $3,241.

Software bundled with the MacDSP board allows users to view the data by magnitude, phase and other formats. Multiple windows allow the user to simultaneously graph and compare the results of several different functions.

The program carries several built-in standard filters, and users can build their own with the AT&T DSP32 C compiler, which is bundled with the product.

Other data-acquisition daughterboards for the MacDSP card will be available by November. One is a two-channel, 125-kHz board, which Finkel said has already attracted the interest of musicians as well as scientists. The other is a 880-kHz, single-channel A/D daughterboard. Pricing for these options has not yet been set.

Spectral Innovations Inc. is located at 292 Gibraltar Drive, Suite A-4, Sunnyvale, Calif. 94089; (408) 734-1314. □

# Pixelink introduces Mac II large-screen color monitors

HUDSON, Mass. — Setting its sights on the CAD/CAM market, Pixelink Corp. recently introduced two new large-screen color monitors for the Macintosh II developed by European-based electronics giant Philips.

Pixelink will market a family of color monitors for Philips in the United States. The first offerings in the series are Model C1648, a 15-inch monitor priced at $2,195, and a 19-inch version, Model C2048, available for $2,995. Each monitor is shipped with an eight-bit graphics board.

Both monitors support full-color displays with a resolution of 1,024 by 768 pixels.

Pixelink Corp. is located at 9 Kane Industrial Drive, Hudson, Mass. 01749; (508) 562-4803. □

**Pixelink's new monitors support full-color display at 1,024 by 768 pixels.**

# High-Tech offers fax/modem switch series

BY EMILY BROWER

PHOENIX, Ariz. — High-Tech Resources has a family of solutions that get double duty from single telephone lines attached to fax machines or modems.

The Phoenix, Ariz., company's series of three fax/modem switches, available now through dealers, allow telephone lines to be shared between voice mode and data mode and between modems and fax machines.

All three products provide standard RJ-11 modular phone jacks for connecting to telecommunications hardware using standard telephone wire.

The V/F/M Fax/Modem Swotch, which sells for about $100, shares a voice line with a fax machine or modem and prevents incoming and outgoing calls from "barging in" on data transfers.

The F/M/A Fax/Modem Switch offers all the features of the V/F/M plus automatic recognition of incoming signals and automatic switching between voice mode and data mode. The F/M/A sells for about $300.

The M/F Modem/Fax Switch, which also sells for $300, shares one line with two peripherals. The M/F deciphers incoming tones and directs them to the fax machine or modem. The M/F will also work with faxboards, telex terminals and dial-up printers.

High-Tech Resources is located at 4225 W. Glendale, No. 102, Phoenix, Ariz. 85051; (602) 931-9851. □

# MacInTouch

BY RIC FORD AND RICK LePAGE

## Products

GCC Technologies recently announced an upgrade program for owners of the original HyperDrive internal hard disks. Owners of a HyperDrive 10, 20 or 2000 can upgrade to any of the external, SCSI-based HyperDrive FX series for the dealer cost of the new drives, plus a dealer-determined labor charge to remove the old unit.

The old HyperDrives do not even have to be in working order for the upgrade — the only requirement is that a complete HyperDrive unit be removed from your Mac and returned by the dealer to GCC. The company also will swap the old drives for HyperDrive FI internal units, although you must have a Mac SE or II to be able to use those drives.

The prices for the upgrades are as follows: HyperDrive FX20, $400 (retail price, $999); FX40, $630 (retail, $1,399); FX60, $765 (retail, $1,699); and FX80, $995 (retail, $1,999). All the drives come with SCSI cable, terminator and utility software (including Microseeds' Redux backup program) and have a full one-year warranty. This program is available only through dealers. While upgrades are standard fare from software companies, it is refreshing to see a hardware company taking care of its old customers.

**Do-it-yourself SCSI, continued.** J & J Enterprises apparently has decided to quit selling components to people interested in building their own SCSI drives (see MacInTouch, July 26). Fortunately, Charles McConathy at MicroNet Technology is willing to pick up the slack. MicroNet sells separate components to dealers, and McConathy is making arrangements to set up some dealers who will sell individual components to end users.

MicroNet makes a full line of complete SCSI disks and tape units if you'd rather avoid the hassles of the do-it-yourself game. We haven't tested them yet, but the components used and McConathy's previous experience at CMS Enhancements promise good results.

LAX JAXSYN/SYNTAX

**SCSI Tools 1.0.** One of the Mac's most valuable tools for dealing with SCSI devices is a shareware cdev (Control Panel device) from Paul Mercer called SCSI Tools. SCSI Tools gives you the ability to see what SCSI ID numbers are being used by devices connected to your Mac, remount hard disks dragged to the trash and kick-start recalcitrant drives.

Following a successful beta version, SCSI Tools 1.0 has just been released through on-line services and users groups. It's worth much more than the requested $5 donation to the development office of UNICEF.

**MIDI tools.** There is a group of very useful shareware tools for musicians and programmers working with MIDI on the Macintosh.

Benoît Widemann's shareware application MidiTest 2.0 lets you receive and send MIDI messages, as well as save them to disk in plain text format. MidiTest works on the lowest level, where you deal with hexadecimal MIDI command codes, but it includes a built-in explanation of those codes. It also has a few niceties like clock and active-sensing ($FE) filters and MIDI interface configuration options. MidiTest is a good application for learning about MIDI.

A companion program from Widemann, MidiControl 1.0, is a $35 shareware application for constructing MIDI control panels on your Mac — sort of a MIDI construction kit. It lets you create a full-blown Mac interface for synthesizers that often have only minimalistic controls on their own front panels.

After opening a new MidiControl document whose window will serve as the control panel, you create and edit various buttons, check boxes and scroll bars. Each of these controls has MIDI messages associated with it (which can be determined using MidiTest). When you click on a button, its messages are sent out over MIDI. Scroll bars send different values depending on whether you click on the arrow or the gray area, and you set minimum and maximum values for the bar's range. The main MIDI channel also can be set for each MidiControl document.

Ralph Muha of Kurzweil Music Systems wrote a free application called MIDIScope that is somewhat similar to MidiTest, but it is

*Continued on next page*

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is available from the same sources, but the latest version may be available only through the Apple Programmer's & Developer's Association (APDA).

**MultiFinder funnies continued.** A mysterious programmer in Montana dropped us a note on MacNET to describe a much improved way of viewing the MultiFinder funnies in System Tools 6.0 (MacInTouch, Aug. 30). (Maybe this is the issue that's holding up Apple's release of the 6.0.1 bug-fix version of the system...)

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ing signals and automatic switching between voice mode and data mode. The F/M/A sells for about $300.

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High-Tech Resources is located

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designed for display only. MIDIScope has a wider range of options for displaying MIDI data, including peaks, averages and histograms, as well as check boxes for filtering and a choice of displaying data in symbolic or numeric forms.

These programs are available on-line in Delphi's ICONtact databases and from some of the other usual on-line and users group sources.

## Bugs & Tips

The widely used, Apple-recommended Installer application is one of those Apple black boxes that pays scant attention to Apple's own "Human Interface Guidelines": "Users want to feel that they are in charge of the computer's activities. There should be no secrets from the user, no abstract commands that only promise future results."

The Installer is a powerful application that can create, change and delete both files and resources on your hard disk. If it tells you at all what it's doing, it tells you only in general terms through an optional help panel.

For each resource deleted or replaced, there's no dialog asking whether you want to do it and what it means to do it. If you click the Remove button, will it remove a system resource that's needed by something else?

We haven't seen many problems with the Installer so far, but working with remote AppleTalk software pointed out some potential for trouble when different vendors have their fingers in the same Apple pie.

Vendors like Shiva, Solana and DataSpace typically use the Installer to make changes to the system to support their remote AppleTalk bridges. Apple uses the Installer to put AppleShare on your Mac. The problem is that these companies have not, as far as we know, coordinated their scripts.

We've trashed some systems trying to remove resources with the Installer and encountered other problems installing scripts in the "wrong" order.

One vendor may be using the Network 1.0 Control Panel device while another requires Version 1.1. Who knows what other little hacks and resources are being installed or removed, and what the outcome is when you install more than one package at a time? Will re-installing network software you got three months ago regress some of the resources in your brand-new System 6.0.1 release when it comes? It's always a potential problem when a vendor modifies a resource or file that's not entirely its own.

If you're not timid about tweaking bits and bytes, there are a few things that can help in sorting out potential confusion. Apple's tech note TN75 describes in detail how the Installer works. The Installer is driven by scripts that are actually resources themselves. The latest Apple resource editor, ResEdit 1.2B1, lets you view and manipulate those scripts.

Apple's tech notes are available from many on-line services and users groups. ResEdit is available from the same sources, but the latest version may be available only through the Apple Programmer's & Developer's Association (APDA).

**MultiFinder funnies continued.** A mysterious programmer in Montana dropped us a note on MacNET to describe a much improved way of viewing the MultiFinder funnies in System Tools 6.0 (MacInTouch, Aug. 30). (Maybe this is the issue that's holding up Apple's release of the 6.0.1 bug-fix version of the system. ...)

On a copy of MultiFinder that you're going to use for testing, use Symantec's SUM or a similar program to make the change to the MultiFinder file. Change 034BC0 to 0000C0. There are two occurences of the value and both should be changed.

On the patched version of MultiFinder, bringing up the About box will alternate slowly between the standard text and humorous text.

**LaserSpeed.** Version 1.6 of LaserSpeed, the print spooler from Symantec's Think Technologies division, does not work with the most current LaserWriter driver, which is at Version 5.2. LaserSpeed does work with Version 5.0 of the LaserWriter driver and Think reportedly is working on an update to fix the problem.

**Red Ryder.** When we talked about Red Ryder techniques for saving your session log (MacInTouch, July 26), we neglected to mention that we always use Red Ryder in "TTY" (teletypewriter) mode.

Even when the host computer can support VT100 screen commands, it's smoother to scroll back through a session of simple TTY lines than it is to work with a log containing a series of full-screen changes and erasures.

## Reference

APDA, 290 S.W. 43rd St., Renton, Wash. 98055; (206) 251-6548.

GCC Technologies, 580 Winter St., Waltham, Mass. 02154; (617) 890-0880.

MicroNet Technology Inc., 13765-A Alton Parkway, Irvine, Calif. 92718; (714) 837-6033. □

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*We welcome your comments and questions on MacInTouch at MacWEEK, One Kendall Square, Suite 326, Cambridge, Mass. 02139; (617) 577-1033. Electronic mail: MCI Mail: RICFORD, RLEPAGE, MACWEEKBOSTON; CIS: 75056,1225 (Ric Ford), 75016,350 (Rick LePage); Delphi/PAN: MACWEEKBOS; AppleLink (address to the attention of "MacInTouch" in Subject): X0702; MacNET: RICFORD, RICKLEPAGE; Internet: RICFORD@CUP.PORTAL.COM; GEnie: MACWEEKBOS.*


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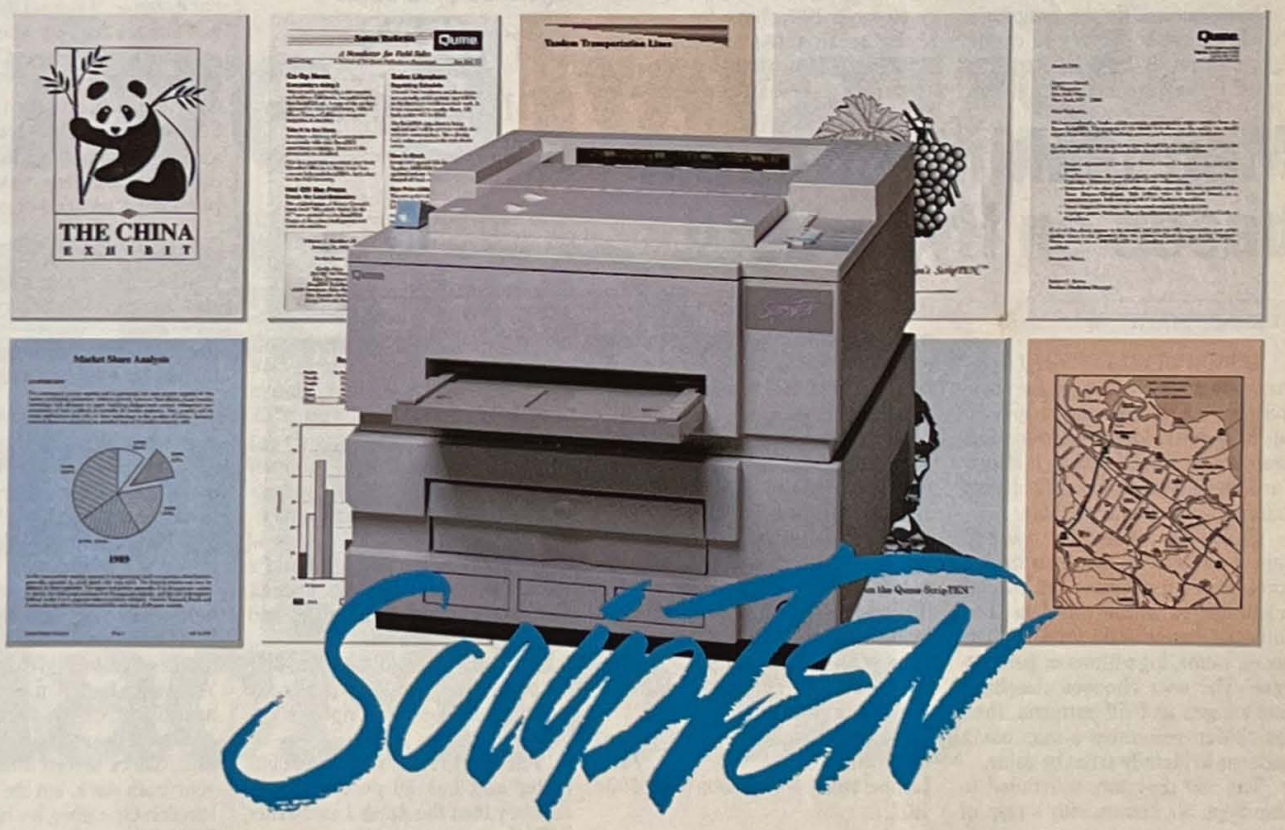


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# A Japanese perspective on CAD

## *Modeler has 'walk-through' feature*

BY WILL McCLATCHY

FOSTER CITY, Calif. — Historians, take note.

DynaWare Japan, a leading software supplier in Japan, slipped quietly into the Mac CAD market last month with the introduction of DynaPerspective, a 3-D modeling package. Its maker claims it is the first business-oriented Mac software product from Japan.

DynaPerspective is intended to give architects, mechanical engineers and construction professionals a way to quickly generate and analyze ideas for building designs. The tool is helpful during the critical selling stage facing many designers, DynaWare officials said.

"It helps the client you are working with to visualize what the model will look like," said Santiago Navarrete, product manager with DynaWare Corp., the company's U.S. subsidiary. "It helps you get your ideas across with clarity."

Users can call up the program's predefined symbol library or create objects manually by selecting from one of DynaWare's 14 primitives, which include cubes and cylinders. Precise dimensions can be assigned to objects by entering numerical values at the bottom of the screen.

Objects can be created as wireframe models with or without hidden lines or as solid objects with shaded surfaces. The light source responsible for the shading can be moved to any position, as can the point of origin of the viewer and the objects themselves.

A special feature of DynaPerspective, Navarrete said, is its ability to move inside of objects. This allows architects to "walk through" the interior of a building, for instance, as well as around the outside.

"Some people would like to peek inside to get a feel for how it would look, how they can design the room's interior," Navarrete said.

Another major feature of DynaPerspective, he said, is its ability to save 100 shots for instant replay as an animation sequence. The user activates this by choosing 10 frames representing the rotation or modification of an object. The program then calculates additional frames to create a smooth series.

The product supports three color-palette modes offering varying combinations of gray shades and colors.

Due to ship later this month, DynaPerspective will cost $1,495.

DynaWare Corp. is located at 1163 Chess Drive, Suite J, Foster City, Calif. 94404; (415) 349-5700. □

COURTESY DYNAWARE

**DynaPerspective is a 3-D modeling package imported from Japan.**

# Map-making program based on HyperCard

BY RENEE MATHEWS

LAMBERTVILLE, N.J. — Promising Mac users an inexpensive means of interpreting map-related data, MicroMaps Software Inc. has introduced QuickMap, a HyperCard-based geographic analysis and mapping program for the Mac.

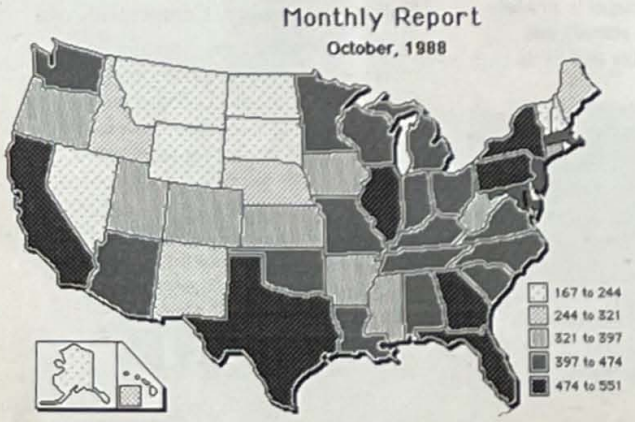
QuickMap allows Mac users to import one or two data sets from a spreadsheet or database and analyze relationships within the data. The software can provide totals, differences, ratios, logarithms or percentages. The user chooses classification ranges and fill patterns, then QuickMap generates a map using patterns to identify areas by value.

The $99 program, scheduled to ship Sept. 30, comes with a map of the United States, but users can work with commercial clip-art maps or draw their own. Maps can be saved in MacPaint format or copied into documents.

QuickMap is aimed at users in business, government and education who need to create maps for reports, proposals and presentations, according to MicroMaps. For example, the company said, the program could be used to map out the difference between market estimates and actual sales or to analyze demographic patterns.

QuickMap runs on any Mac Plus, SE or II with HyperCard.

MicroMaps Software Inc. can be contacted at P.O. Box 757, Lambertville, N.J. 08530; (609) 397-1611. □




**QuickMap is intended for users who need to create maps for reports and presentations. It comes with a U.S. map, but can be used with others.**

# Qume cuts ScripTEN printer price

BY CLIFF LEHMAN

MILPITAS, Calif. — Qume Corp. has cut the price of its ScripTEN laser printer by $500 to $4,595, the company recently announced.

"We wanted to keep things competitive," said Mike Sugihara, director strategic planning at Qume. "We were a little delinquent in relation to the LaserWriter IINT and NTX introduction." Apple's current PostScript laser printer models, priced at $4,599 and $6,599, respectively, were introduced last January.

"The ScripTEN's advantage is that it has 3 Mbytes of RAM and a 10-page-per-minute engine, making it very competitive with the NT and the NTX," Sugihara said.

The price cut positions the 300-dpi printer as a "leader in price/performance in the PostScript marketplace," he said.

The ScripTEN is 25 percent faster and has 50 percent more memory than the Apple LaserWriter IINT, the company said.

The Qume printer is based on a 10-page-per-minute Hitachi engine and its controller provides an Adobe PostScript interpreter as well as Hewlett-Packard LaserJet emulation.

Qume recently announced plans for another printer, called CrystalPrint Publisher, that uses liquid-crystal shutter technology; a PostScript clone controller; and a Weitek RISC chip to produce 300-dpi text and graphics at higher speeds. That printer is now scheduled for delivery sometime between late November and early next year at a price of $4,499, a company representative said.

Qume Corp. is located at 500 Yosemite Drive, Milpitas, Calif. 95035; (408) 942-4000. □

# StackWEEK

BY ERIC ALDERMAN AND STEVE MICHEL

## Tips

Since the release of its CD-ROM drive, Apple has touted HyperCard as the preferred tool for CD-ROM development. HyperCard, with its flexibility, linking capability and graphic nature, fits this role quite naturally. Version 1.2 added several commands that facilitate its use with locked media. As stack developers begin to use these features, however, they're discovering that writing for a read-only environment can be a tricky task.

There are both benefits and pitfalls in dealing with locked media, whether they are physically locked, as is the case with a CD-ROM, or locked by choice using the protection features offered by HyperCard (using the cantModify stack property added in 1.2) or the Macintosh system (by locking the file from the Finder).

The benefits of working in a locked medium include not having to "clean up" after your scripts that make drastic rearrangements of the screen. For example, you might be creating an animated effect by dragging graphic elements around the screen with paint tools. If you can assume a read-only environment, you won't have to worry about whether the graphic elements are replaced where they belong. Your script can drag an element, lock the screen, jump to a new card where you've already placed the graphic in its new fixed location, and then unlock the screen. Another example would be hiding, showing, or moving buttons or fields on a card.

The flip side of that coin is remembering that every change you make on a card in a read-only environment — even the merest highlighting of a button or the scroll of a field — is lost the moment HyperCard "leaves" that card for any reason. Remember that even background changes are lost. For example, if you set the highlight of a background button to true, it won't be set that way when you move to another card in the background.

What's more, HyperCard's departure from a card happens more often than you might expect. This means you must track every change that you want to remain on a card during various visits to it during a session of use. For example, let's say your current card is one on which a script has shown a series of buttons and fields. If you execute a script that goes to another card or stack for any reason, all of your setup would be lost. The normal **push card**, **go card** or **go stack**, and **pop card** won't be sufficient. You

```
on enterKey
  set the cantModify of this stack to not the cantmodify of this stack
end enterKey
```

**Use this handler to toggle a stack's cantModify property to facilitate testing for a locked environment.**

may want to store the setup status of the card in a closeCard handler using global variables, which are not lost in a read-only environment.

There are many other ways that HyperCard can pull the rug out from under you if you're not careful. For example, the command **get the long name of stack "Home"** may seem innocent enough, but, in fact, it causes HyperCard to go to the Home stack and back (to get its name), thereby losing card changes.

Here's another one we happened across after many late hours of head-scratching. Let's assume you have two stacks that are on a CD-ROM or are otherwise locked. In the main stack, you have an openCard handler that sets up each card as you want it to appear when it is opened. You want a button in the stack to jump to your secondary stack and then have that stack use a return button to jump back.

Here's the catch: If the return button has a script like "lock screen, pop card, unlock screen with zoom close," it will cause you to jump back to your main stack, but the card will not have been updated by the openCard handler. Or, rather, it's been updated, but the updates were instantly lost. Why? It appears that after the openCard handler makes its changes, HyperCard has to refer back to the secondary stack to read the additional line of script (the "unlock screen"). This subtle reference is enough to throw away your card changes. For some reason, this doesn't happen when the secondary stack is not locked. The solution in this case is to be sure that the returning command in the secondary stack is the last one in the handler. For example, use the **visual effect zoom close** command before the pop card rather than the **unlock screen with zoom close** command. This problem may very well be a bug in HyperCard.

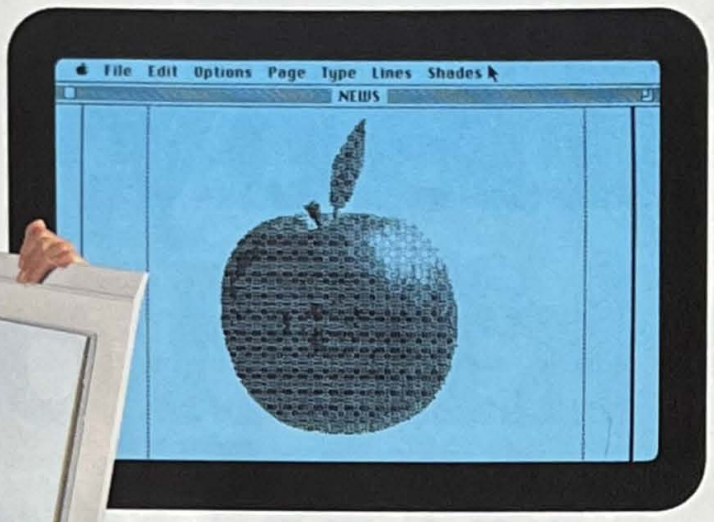
An easy way to test how your stack will operate in a read-only environment is to set the cantmodify stack property to true. You can do this in the Protect Stack dialog box, but the enterKey handler shown in the script listing makes a convenient toggle for this purpose. Put this into your Home stack script to make it available to all of your stacks.

Jim Edlin provided some much-appreciated help and inspiration for this week's StackWEEK. — E.A.

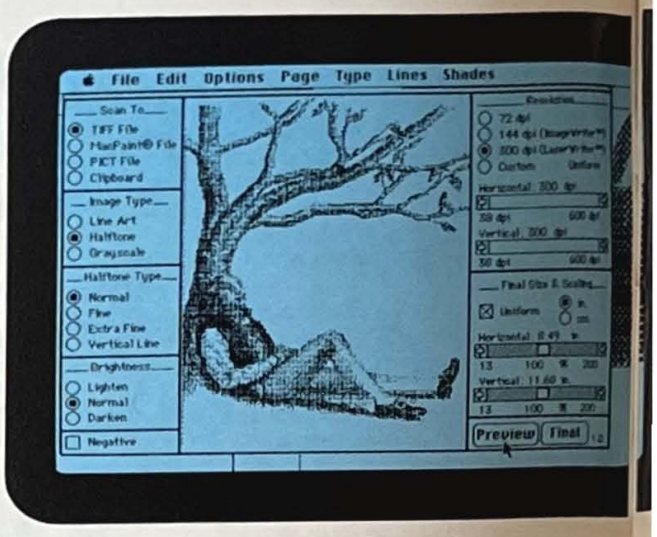
*If you have any questions, comments, tips or other HyperCard-related information you'd like to share, write us at StackWEEK, c/o MacWEEK, 525 Brannan St., San Francisco, Calif. 94107. Electronic mail: MCI: STACKWEEK; AppleLink: D1507 (Steve) or D1577 (Eric).*

# Finally, the kind of scanner you've always wanted for your Macintosh.

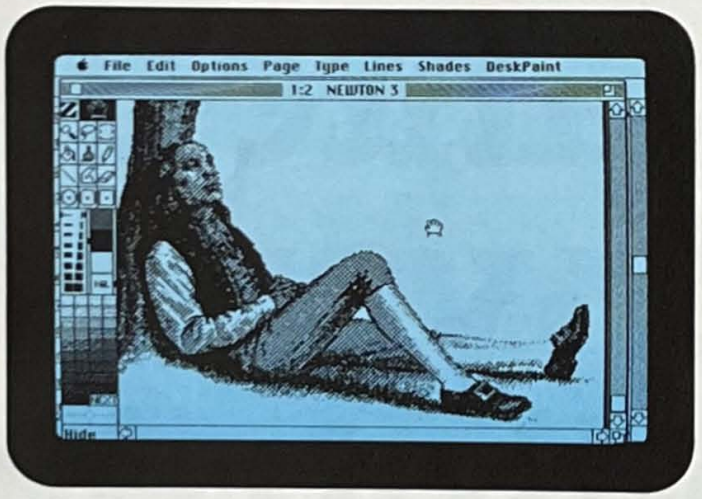
# It just took HP to



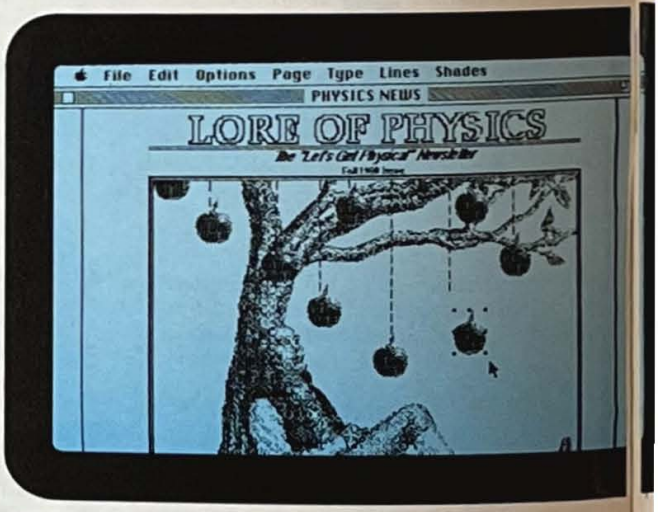

**Scan.** In less than 30 seconds, your image is transferred from the HP ScanJet scanner to your Macintosh screen.




**Preview Scan.** To add another image without leaving your application software, pull down the scanning desk accessory and begin with Preview Scan from the menu.




**Edit/Paint.** Bring in DeskPaint to touch up your images. Menus and point-click commands make it easy.

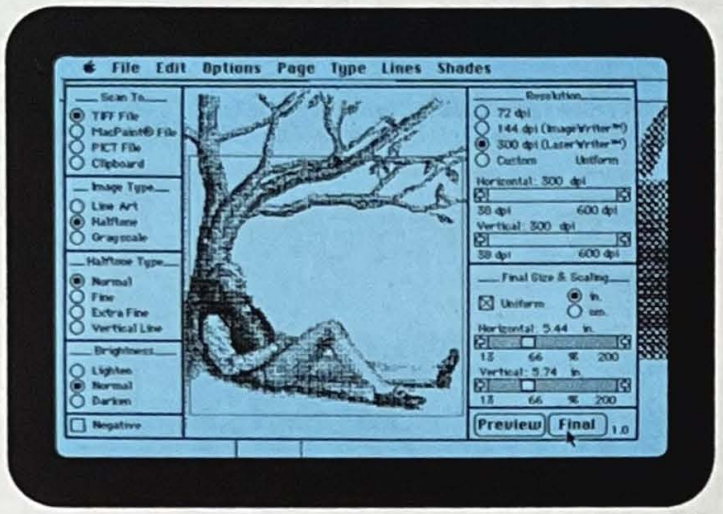



**Place.** Bring in your masthead from memory, place the scanned images wherever you want, copy and place multiple images, key in text, wrap, enlarge or shrink to fit.

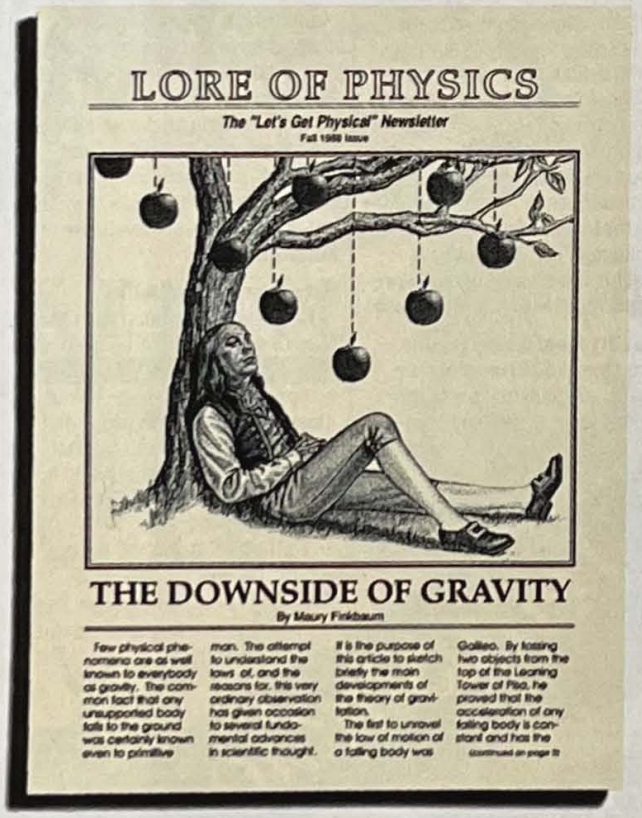
The HP ScanJet scanner puts you several steps ahead of other Macintosh-compatible scanners. Because our desk accessory approach lets you scan, edit and paint images all together on the screen. Without having to jump from one application to another. HP's Desk Gallery software makes it all possible. So you can add the impact of photographs, illustrations and logos to your

# make it this easy.

*we never stop asking "What if..."*




**Final Scan.** Select a portion or all of your image to reduce or enlarge, and scan as line art, halftones, gray scale or negative images.


LORE OF PHYSICS

*The "Let's Get Physical" Newsletter*

Fall 1988 Issue

**THE DOWNSIDE OF GRAVITY**

By Maury Finkbaum

Few physical phenomena are as well known to everybody as gravity. The common fact that any unsupported body falls to the ground was certainly known even to primitive man. The attempt to understand the laws of, and the reasons for, this very ordinary observation has given occasion to several fundamental advances in scientific thought. It is the purpose of this article to sketch briefly the main developments of the theory of gravitation.

The first to unravel the law of motion of a falling body was Galileo. By tossing two objects from the top of the Leaning Tower of Pisa, he proved that the acceleration of any falling body is constant and has the

continued on page 11

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HEWLETT PACKARD

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# Kinetics toolkit for ULTRIX developers released

BY JON SWARTZ

WALNUT CREEK, Calif. — Kinetics Inc. last month introduced a software toolkit that enables developers to write AppleTalk-compatible applications for VAX computers running ULTRIX, DEC's UNIX-based operating system.

Called K-Talk for ULTRIX-32 Version 3, the software toolkit is a development platform that gives software developers access to AppleTalk network protocols from ULTRIX programs, a Kinetics spokeswoman said.

K-Talk consists of user libraries available from Kinetics and kernel modifications in the ULTRIX operating system, she said.

K-Talk user libraries provide programmers with the ability to write applications based on AppleTalk protocols running on ULTRIX. K-Talk kernel modifications, in turn, allow the Ethernet driver to recognize AppleTalk as a valid protocol type.

As a result, Mac applications can communicate using AppleTalk ULTRIX hosts, which appear as AppleTalk nodes on an Ethernet network, according to Kinetics.

K-Talk for ULTRIX Version 3 is the latest in a string of Kinetics K-Talk offerings for UNIX systems. Previous versions support products from TOPS of Alameda, Calif.; Sun Microsystems Inc. of Mountain View, Calif.; and others.

"The Kinetics K-Talk toolkit plays a vital role in expanding Digital and Apple's joint-development agreement," said Jim Despathy, DEC manager of ULTRIX third-party programs. "It is the excellent work of third-party developers like Kinetics that advance our technology and ensure that it lives up to its potential in the business environment."

User libraries of K-Talk for ULTRIX Version 3 cost $750 to $1,500, depending on the size of the ULTRIX system, Kinetics said.

Kinetics is located at 2540 Camino Diablo, Walnut Creek, Calif. 94596; (415) 947-0998. □

# GW ware lets Mac emulate lab instruments

BY WILL McCLATCHY

SOMERVILLE, Mass. — The Mac may not look like an oscilloscope, but officials at GW Instruments claim it can be made to do the same job, as well as the functions of several other expensive dedicated laboratory devices.

MacInstruments, a new software package from GW, allows the Macintosh II and Mac SE to emulate such instruments as the oscilloscope, chart recorder and scan line recorder under one unified user interface, according to Stephen McCabe, vice president of marketing for GW.

Two features differentiate MacInstruments from traditional computer-based instrument systems, he said.

"First, there is no programming whatsoever," McCabe said. "But what's really important is that it does things in real time."

When the package is used with data-acquisition hardware, users can capture data and graph it immediately. Medical professionals, for instance, can scan a heartbeat on-screen with the same precision as with traditional instruments. The familiar waveforms progressing horizontally against the screen, complete with a timing beep at each pulse, can be displayed in real time.

"A doctor doesn't want to know what an EKG (electrocardiogram) is several minutes from now," McCabe said.

The greatest bottleneck for computer-based instrumentation has been in the software that displays results, something GW engineers have worked hard to speed up in MacInstruments.

MacInstruments represents "only a beginning" for virtual computer instrumentation, and there is plenty of room for growth, said McCabe. "That market is literally tens of billions of dollars," he said, pointing to the instrumentation-based revenues of giants like Hewlett-Packard.

In addition to research scientists, people in manufacturing and process control are also potential users of MacInstruments, according to McCabe.

The program, for example, can help monitor plant equipment for pressure, temperature and other characteristics.

All data can be saved to disk in a standard database or in Microsoft Excel spreadsheet format for later analysis or simply to the Clipboard. Users can zoom in and out of portions of large batches of experimental results.

GW is known for its MacADIOS II and MacADIOS II Jr. data-acquisition boards. MacInstruments is expected to ship this fall for $790.

GW Instruments is located at 35 Medford St., Somerville, Mass. 02143; (617) 625-4096. □


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# MacPaint images on PCs

BY CAROLYN SAID

SUNNYVALE, Calif. — A new shareware program for the IBM PC makes switching back and forth between a Mac and a PC a little bit easier for graphics users. Macpaste from PC-SIG Inc. lets PCs and compatibles read, edit and print MacPaint files originally created on the Mac.

"It is a full-featured editing program that allows you to turn your IBM into a Mac graphics program or use it to create graphics for your Mac," said Dave Cagle, PC-SIG technical supervisor.

With a Mac-like interface, Macpaste replicates many of MacPaint's features, including cutting and pasting, line drawing, painting, shading, scrolling and magnifying. Included with Macpaste is Macblank, a stand-alone utility that can be used to generate original, MacPaint-like files on the PC.

Among other utilities included with Macpaste are Macshow, which sequentially shows MacPaint files on the same drive; Manymac, which combines four MacPaint files into one; and Macfix, which fixes the header records on MacPaint files so other programs can read them. Files created or edited with Macpaste can be opened and edited on the Mac.

Macpaste comes with a driver for the Okidata 93 Microline printer; registered owners can request drivers for other printers.

Macpaste runs on an IBM PC or compatible with at least 128 Kbytes of memory and color graphics capabilities. It is available from PC-SIG for $6 plus $4 shipping and handling.

PC-SIG Inc. is located at 1030-D E. Duane Ave., Sunnyvale, Calif. 94086; (418) 730-9291. □


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► LetraStudio type distortion option creates a focal point for this cover design. There are 8 different options plus running text along straight, circular or arbitrary curves.

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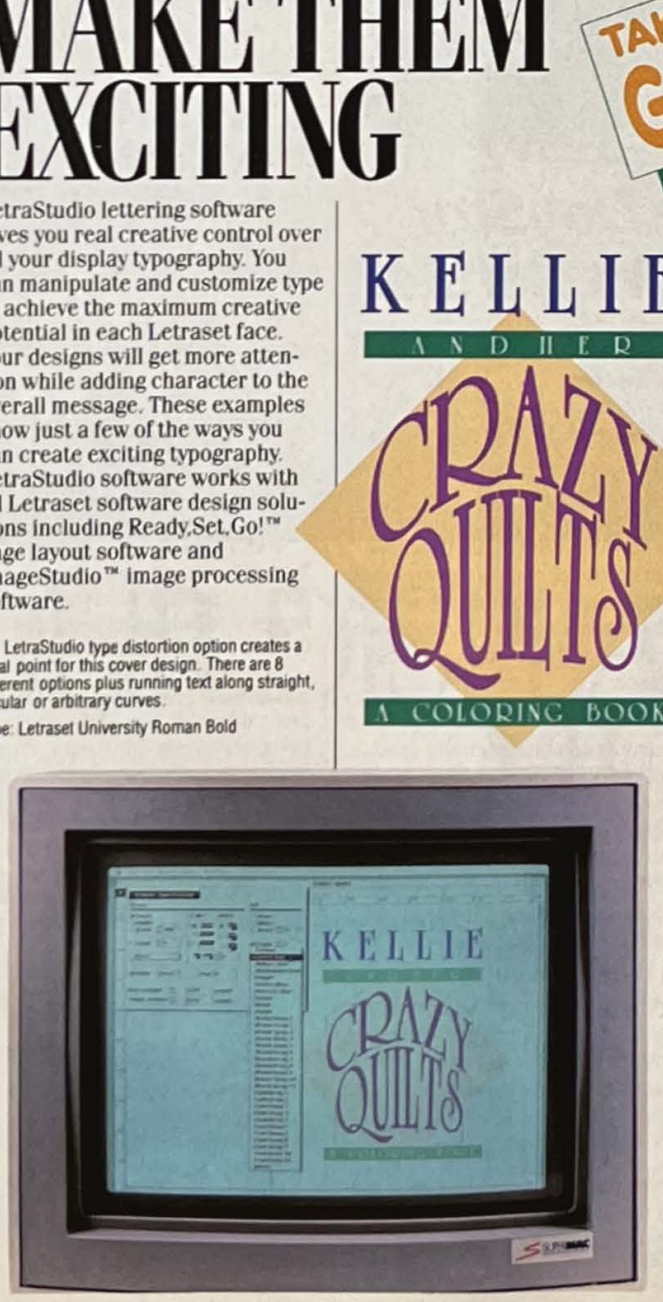

◄ An extra dimension was added to the type with LetraStudio software and combined with art created on Adobe Illustrator '88.

Type: Helvetica

◄ Spot art is easy to create –the box shapes were produced in LetraStudio software and then the type was stretched while in position.

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◄ The character of a beautiful letter is enhanced by selecting one of the many optical distortions available.

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# MacClassAds manages classified ads

BY CAROLYN SAID

FEDERAL WAY, Wash. — Small publications can manage and operate their classified ad sections with MacClassAds, a comprehensive classified advertising system developed by Publishers' Services Inc. and MacNorthWest.

MacClassAds employs hidden tags, programmed in HyperCard, to set up text styles for classified ads, which are then flowed into Aldus PageMaker. The system, which can totally paginate classified ads with minimal text editing, offers such special features as automatic pricing, subsorting within classifications and line-for-line text editing.

Extensive report capabilities include daily transaction summaries, daily payments, credit card vouchers, callback lists, invoicing lists and aging reports.

PSI President Carla D. Royter said the system's strengths include its ease of use, with many prompts that guide the user, and time-saving techniques to handle routine functions such as renewals and callbacks.

Users will receive a customized template with the publication's particular page grid, column layout and style guides in place.

MacClassAds fills a market void for small weekly newspapers that couldn't find an affordable system to handle classified ads, according to Royter. "This system can do anything a big, expensive mainframe system can do and more," she said.

The current version of MacClassAds is a single-user system. A multi-user version is now in beta testing and will be released within two months, according to Royter. The multi-user version, which will bear the same name but a different release number, will be able to network up to 32 Macs and will not require a dedicated file server, she said.

To run MacClassAds, users need HyperCard, Aldus PageMaker and a Mac SE with at least a 20-Mbyte hard drive.

MacClassAds is list priced at $1,995. Pricing for the multi-user version has not yet been determined, but it will be in the range of $2,000 to $2,500 per computer, Royter said.

PSI offers 24-hour support as well as systems and sales training. A demonstration disk is available for $20.

PSI can be contacted at P.O. Box 8010, Federal Way, Wash. 98003; (206) 859-8232. □

# Daystar to release '030 accelerator

FLOWERY BRANCH, Ga.— Even before shipping its recently announced 33-MHz 68020 Mac II accelerator board, Daystar Digital has revealed that it will release a board that uses Motorola's 68030 processor instead.

Daystar is planning to hit the Mac II accelerator market Dec. 1 with Accelerator II, a $6,995 16-MHz 68030-based replacement for the Mac II's on-board 68020.

Offering a 10 percent to 15 percent speed improvement, the board plugs directly into the processor slot on the Mac II motherboard. Contrary to a report in MacWEEK last week, DRAM memory in the Mac II need not be swapped for the Daystar board to work.

Daystar Digital is located at 5556 Atlanta Highway, Flowery Branch, Ga. 30542; (404) 967-2077. □

# MacWrite bundled with mail merge

BY RENEE MATHEWS

MOUNTAIN VIEW, Calif. — Claris Corp. has initiated a fall promotion program for MacWrite 5.0 by bundling a third-party add-on that provides mail-merge capabilities for the package.

The promotion, which began Sept. 6 and runs through Dec. 31, offers a copy of MergeWrite to new buyers of MacWrite 5.0. The utility, a stand-alone application from Software Discoveries Inc. of South Windsor, Conn., enables users to personalize form letters created in MacWrite by integrating names, addresses and other data from a separate "data document," which can be another MacWrite file or a text file created by a database application.

Because MergeWrite allows users to specify the characters used as delimiters in the data document, the program is compatible with files created by virtually all database programs. The program also offers logical operators that make it possible to tailor the contents of a letter in accordance with specified conditions.

The MergeWrite program has been duplicated on the MacWrite 5.0 disk during the promotion. The retail price of MergeWrite, which also works with older versions of MacWrite, is $49.95.

Claris Corp. is at 440 Clyde Ave., Mountain View, Calif. 94043; (415) 960-1500. □


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**Depend on the Novy-DayStar Team**

Novy Systems designed the state-of-the-art Mac20MX with blazing processing speed and unsurpassed compatibility. DayStar has now teamed with the Novy engineers to provide seasoned production, a highly reliable product and knowledgeable customer support. The Novy-DayStar team will clearly outperform the competition.

**Compare and Choose**

In the March, 1988 *MacUser Labs Report,* independent experts rated the Mac20MX as the overall fastest accelerator that uses standard SIMM memory. Couple this speed with the widest range of available features and the Mac20MX becomes the only choice.

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The Mac20MX uses a 32-bit 68020 processor and comes in 16 or 25 MHz speeds. The 16 MHz version races with the Mac II—that's four times faster than your basic Macintosh. You'll speed your Macintosh up an amazing six times faster with the 25 MHz version. Or purchase the 16 MHz version today and you can upgrade to 25 MHz at any time. On top of this, spreadsheet and CAD number crunching will fly up to one hundred times faster with the optional 68881 math coprocessor.

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Our special features can be selectively used to optimize your Macintosh operations. Hard drives will operate properly, and most big screen monitors will plug right in and go to work. Sound quality is faithfully maintained at all speeds. Don't throw away your games or old software, because you can still choose to run with the original 68000 processor.

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# ExpressNet runs Ethernet on phone wires

BY JON SWARTZ

SUNNYVALE, Calif. — David Systems Inc. this week introduced and shipped the David ExpressNet, a cabling system that runs an Ethernet local-area network over the unshielded twisted-pair wiring in ordinary telephone systems.

The new system promises a significant reduction in the cost of using the high-speed Ethernet standard to connect Macs to other personal computers, workstations and minicomputers.

A company spokesman said the cabling system consists of a main hub unit, which is typically mounted in a building's telephone wiring closet, and small adapter units, known as David TP-MAUs, which are installed between connected stations and wiring outlets.

A single David ExpressNet hub, about the size of a hardcover book, connects up to 12 stations in a star configuration and can be cascaded with other ExpressNet hubs, networking up to 1,024 personal computers, workstations, minicomputers, terminals or other Ethernet-compatible devices, according to David Systems.

David ExpressNet features include integrated microcomputer or terminal-based network management and control functions, the company said.

Because David ExpressNet conforms to the draft IEEE 802.3 10Base-T 10-Mbits-per-second transmission standard, the product can easily interface with Ethernet-compatible hardware and software from Apple, Novell Inc., 3Com Corp., IBM, DEC, Microsoft Corp. and others.

David ExpressNet is priced at $2,495 per hub and $149 for each TP-MAU.

David Systems is at 701 E. Evelyn Ave., Sunnyvale, Calif. 94086; (408) 720-8000. □

# Desktop publishing study in the works

SAN FRANCISCO — Avoiding what it calls "computer-ese jargon," Arcadia House Inc. plans to publish a new series of reports designed to help users keep tabs on emerging desktop publishing technology.

The 5-year-old San Francisco publishing and consulting company expects to release the first study in its new series of Graphics Technologies Reports this month. Priced from $50 to $200 each, the book-format reports will provide up to 100 pages of product and marketing information about desktop publishing opportunities with the Mac and IBM PC.

"I'm trying to freeze action with these reports and look at the complete state of a vertical market at one point in time," said Arcadia House President Thad McIlroy.

The series opener is titled "The Quick Printer and Desktop Publishing: Available Systems and New Approaches." Other reports in the works include "Desktop and Electronic Publishing, A Primer for Printers" and "Customer On-line Publishing Systems," a 100-page report detailing the process of direct-to-plate composition with composed text and graphics in full color.

Arcadia House Inc. is located at 2443 Fillmore St., Suite 321, San Francisco, Calif. 94115; (415) 441-5333. □

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To make your life even easier, you have a choice of a 12 pt. or 16 pt. menu bar for easy readability. Plus, an adjustable screen saver to prolong the life of your screen. You also have the ability to select any sized portion of the screen and capture it in a file.

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# LISP with a European accent

## *British import sports Mac-like feel*

BY WILL McCLATCHY

GOLETA, Calif. — A leading European LISP interpreter has crossed the Atlantic, and its publisher said its strong set of features ensures it a warm reception in North America.

According to its American publisher, ExperTelligence Inc. of Goleta, Calif., Procyon Common LISP is a highly optimized implementation of Common LISP, the dominant LISP standard. The interpreter was developed by Procyon Research Ltd. of Cambridge, England.

The most visible of Procyon's strengths is the Mac-like feel of both the interpreter and the programs it creates, ExperTelligence said.

"The big problem today in artificial intelligence is not to make things more complex but to make things easier," said John Forge, executive vice president at ExperTelligence. "Having a Mac interface that looks comfortable makes things familar and unfrightening." Other LISPs on the Mac tend to have a LISP-machine interface forced onto the Mac, he said, whereas Procyon makes liberal use of dialog boxes and offers universal cut and paste like standard Mac applications.

To extend this Mac-like feel to the applications it builds, the interpreter offers Common Graphics, a windowing system that provides dialog boxes, windows, scroll bars and other familiar user-interface elements from the Mac Toolbox, according to Forge.

With an object-oriented interface and built-in error checking, Common Graphics provides the safest and easiest way of accessing the Mac Toolbox drawing and windowing routines, he said. "In any other system, the interface is the responsibility of the programmer, and the result of it not being done correctly is a bomb," he said. "In Procyon the objects know how to draw themselves."

Forge ranks the program's voluminous documentation as its next most important feature. It includes a full introduction to the LISP language and reference materials for the interpreter and Macintosh environment. "You have 1,000 pages of documentation," he said. "You do not need anything else. It makes this product ideal for universities."

Procyon contains various editors for streamlining the coding process, including a bit-map editor, dialog designer, text editor, and data structures editor and inspector.

The bit-map editor allows the user to draw icons, textures and symbols and represent them in LISP's internal representation for use in a program. The dialog designer allows the user to create customized dialog boxes. The programmable text editor combines standard Macintosh- and LISP-oriented editing features and is customizable. The structure editor allows Procyon users to edit blocks of code at once, while the inspector is designed to interactively examine multiple levels of complex data structures.

Procyon also contains a full-featured debugger. Users can step through the program one line at a time or trace the value of variables and stop execution according to predefined conditions, such as when a variable takes on an invalid value, Forge said.

Procyon's incremental and batch compiler features allow programmers to both test individual lines of code as it is being written and compile finished programs into stand-alone executable files. Most LISP applications require an interpreter to run, according to Forge.

"You can create stand-alone applications without having to pay royalty fees," he said. "This is important if you want to distribute an application as widely as possible."

Forge also touted Procyon's speed. The program runs the Gabriel benchmarks, a standard set of tests for LISP interpreters, an average of 25 percent faster and up to 40 percent faster than the latest version of Coral Software's popular Allegro Common LISP, he said.

Priced at $620 retail and $445 for universities, Procyon is shipping now.

ExperTelligence was recently contracted by Texas Instruments to provide Mac Toolbox access for the microExplorer, a Mac II-based LISP platform. ExperTelligence sells other AI products for the Macintosh, including ExperCommonLISP, an interpreter designed for the delivery of commercial products, and ExperProlog II, the company's version of Prolog, another popular AI language.

ExperTelligence is at 5638 Hollister Ave., Suite 302, Goleta, Calif. 93117; (805) 967-1797. □

# Teacher's helper

TORRANCE, Calif. — The Teacher's Rollbook, a program that calculates grade averages, tracks attendance and allows teachers to keep notes on student behavior has been introduced by Current Class Productions.

The $149 program is available immediately from the company. It requires a Mac with at least 512 Kbytes of memory and two 800-Kbyte disk drives or a hard drive.

Current Class Productions is located at 22824 Berendo Ave., Torrance, Calif. 90502; (213) 326-4246. □


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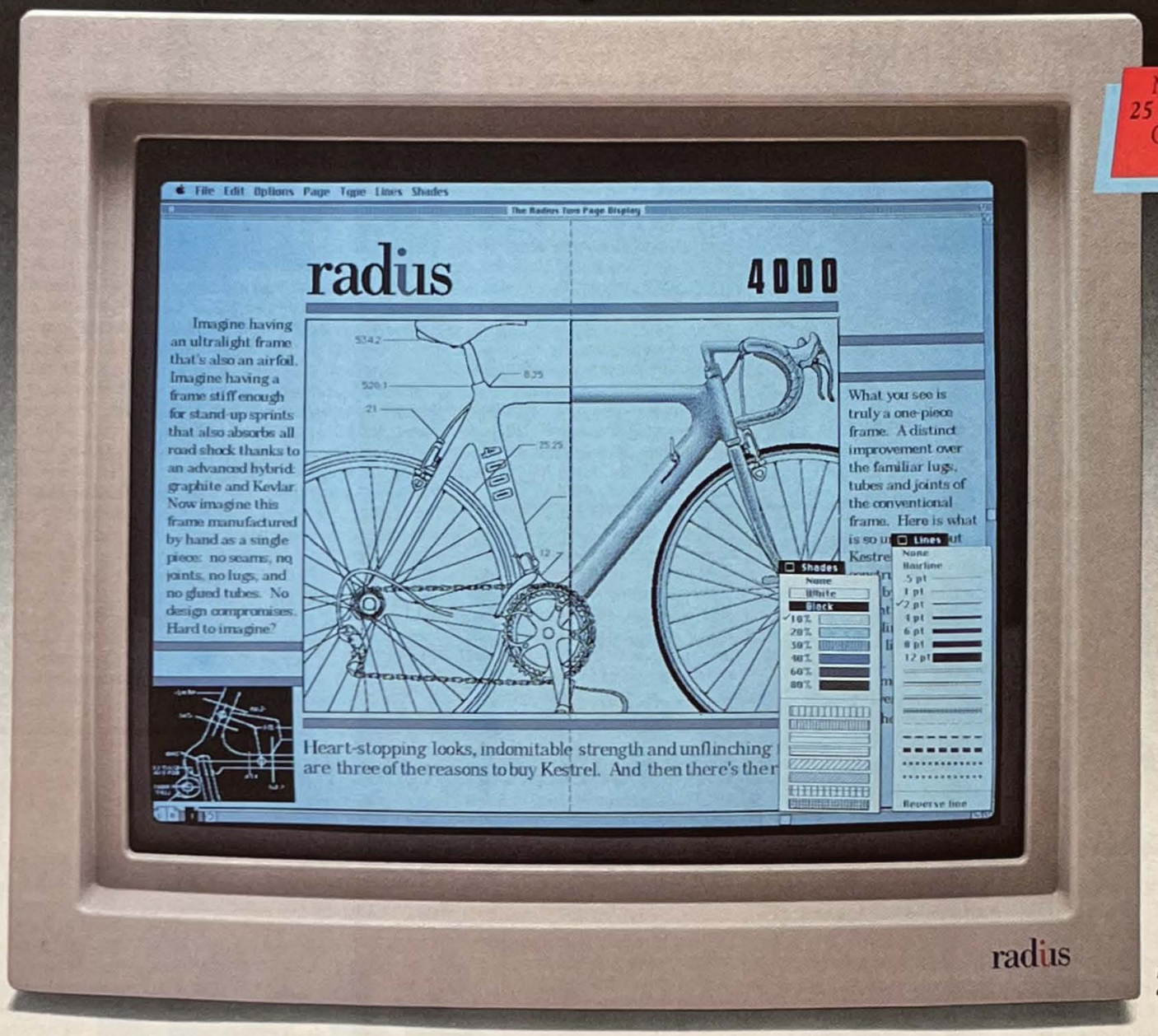


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# Editorial

## Give users training, not just desktop tools

The Seybold Desktop Publishing Conference taking place this week in Santa Clara, Calif., will be showcasing the latest developments in the desktop publishing arena. Clearly, the most impressive products demonstrated at the conference will involve the merging of desktop-based and professional publishing systems.

The integration of Macintosh workstations with typesetters and pre-press systems like the Scitex system offers the virtue of significant cost savings and gives users more control in the production of documents ranging from four-color brochures to newspapers and magazines.

Color and gray-scale image-enhancement programs and scanners offer capabilities for integrating high-quality images in documents, and some programs, like Quark XPress, offer direct output of color separations on typesetting machines.

With all those powerful features available on a Macintosh, vendors face the formidable challenge of demystifying the production process. The promise of desktop publishing is that it's supposed to give the masses who have access to a computer the ability to create professional-looking documents. But operating fine typographic controls, creating tables, working with various file types, using scanner software, managing files and using color-separation utilities, for example, can be a nightmare for the uninitiated.

*Users can end up with pages from another planet.*

Vendors need to provide training and fail-safe systems with enough smarts to protect users from their own ignorance or from inherently complex tools. Scanner software, for example, should work like auto-focus cameras to ensure that the best resolution for an image is obtained.

Designing pages should also be made easier for users without degrees in graphic design. Even with specially developed templates that come with page-layout programs, users can end up with pages from another planet. On-line help and training materials can alleviate some design flaws, but programs need to have some intelligence built in that provides feedback to users about their design decisions.

A few developers, like Aldus, which makes PageMaker, are working on new programming models employing artificial intelligence techniques to automate the design process. These intelligent design tools would recognize the various parts in a document, such as headlines and captions, without extensive tagging of elements, and lay out the pages in an appropriate format.

With numerous Macintosh programs supporting complex page formats, exchanging documents between programs with formatting intact will be a difficult problem that developers must address. Users shouldn't have to pay a penalty because vendors don't fully support one another's formats.

Now that desktop publishing is growing beyond the desktop, the onus is on developers to give the less-sophisticated users access to the tools. Otherwise, the promise of desktop publishing to put powerful communication tools in the hands of many will remain unfulfilled. □

# LETTERS

## MacUP explained

I read Don Crabb's column on backup procedures (Solutions, Aug. 16), and I'm curious about the backup program, MacUP.

1) Will it allow the user to back up files selected at random?

2) Are incremental backups possible?

3) Does it let you read the tape drive just like any other SCSI device, i.e., can you click and drag files from the tape to a disk?

4) Have you tried backing up, say, 60-plus Mbytes onto a 40-Mbyte tape drive with this software? DiskFit does not do this very elegantly.

**David Halonen, Center for Machine Intelligence**
**Electronic Data Systems**
**Ann Arbor, Mich.**

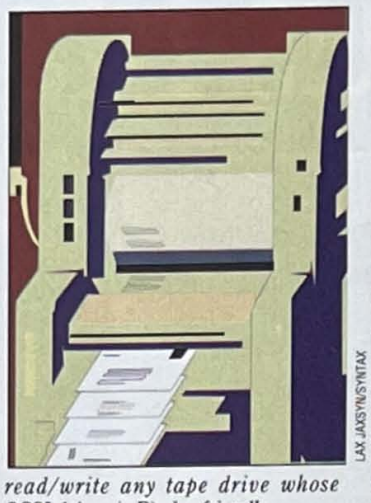
*Don Crabb replies:*

*Here are my answers in the same order you asked the questions:*

*1) Yes, you can pick and choose as you want with complete HFS support; it even shows you a list and hierarchical tree of the files you've selected in separate windows.*

*2) Yes, it checks to see what files were modified or added since the last update and can incrementally back those up.*

*3) Generally, yes, depending on the Finder-compatibility of the drive. It will not work, for example, with the Apple drive because it is not directly recognized by the Finder. In general it will allow you to read/write any tape drive whose SCSI driver is Finder friendly.*



LAX JASYN/SYNTAX

*4) Yes, when it runs out of space it notifies you that the destination drive is full and allows you to mount a new tape. However, the backup does not continue automatically. Yo u have to start it again. It will pick up the incremental backup where you left off. It's not quite as slick as the new backup software that comes with the Tecmar drive (now OEMed by Jasmine at a lower list price of $1,099), but it's still decent.*

## An oily dilemma

The article in your Aug. 9 issue about ARCO's use of Macintoshes in Alaskan oil operations contained some serious inaccuracies.

Regarding sewage treatment at the North Slope oil fields: Sewage is treated on site in a tertiary disposal plant that results in an effluent that meets state drinking water standards. The treated effluent is discharged into an approved holding facility. In times of snow melt, excess water is disposed of in a water-injection well. Hydrogen sulfide has increased in the oil reservoir as a result of water flooding, but it is the natural result of bacterial activity stimulated by natural nutrients in the seawater — not "sewage" as the author stated. Tested and approved biocides are added to the injected water to minimize bacterial activity in the oil reservoir.

The article overstated the threat to oil field workers from hydrogen sulfide. If the gas escapes, it will be detected by an elaborate monitoring system, and proper evacuation methods will be taken. Safety is a prime consideration in all our oil field operations. Only selected areas of the field are at risk from hydrogen sulfide and people who work in this environment undergo certified safety training. Visitors who enter these areas also must undergo this training.

**Ben L. Odom**
**senior vice president**
**ARCO Alaska Inc.**
**Anchorage, Alaska**

*Reporter Elinor Craig responds:*

*Ben Odom's claim of "serious inaccuracies" is itself inaccurate.*

*See LETTERS, Page 24*

**MAC SOAPBOX**/*Ken Goodman*

# Adding VARs to Mac equation

The Mac is now being sold by nearly 2,000 dealers. Some people contend that number is more than enough for any distribution network. Of course, by that standard the 4,500 dealers and VARs selling IBM PCs and clones might be too much. Either opinion is nonsense.

GORDON STUDER

Just consider the 24 million to 28 million IBM PC and compatibles expected to be sold by the end of 1988, a 20-1 ratio in favor of the PC over the Mac. That kind of success requires an extremely large and sophisticated distribution channel.

Granted, it took five years to accomplish this level. But if the PC's current rate of growth continues at 30 percent annually, "Big Red" will have to increase the flow of Macs to remain competitive. And it needs a channel that can adequately handle that flow, which rules out the current Macintosh channel of distribution.

Why? The reasons are twofold: First, there are too few dealers and VARs, and second, these dealers and VARs lack technical sophistication.

Many people inside Apple acknowledge that most of its dealers are technically unsophisticated. Some insiders have said that they believe that only 25 percent of the 2,000 dealers have the technical knowledge — not to mention the capitalization — needed to provide service and support if the higher-priced Mac is to be sold in volume. I know, I know, Apple has never said that publicly, nor will it. Trust me, though, it is said within Apple's inner circles.

And as a result, Apple is taking steps to increase the sophistication of its established channel.

For example, Apple has inaugurated a "co-selling" campaign that has the company and its dealers selling to significant corporations together, if not in harmony. The idea here is to combine the technical knowledge and vendor clout residing at Apple with the dealer's selling experience. IBM tried this approach, and the result was increased tension and heightened emotions on the part of dealers. The reason is simple: Dealers see their sales margins going to the inside corporate sales group.

What's more, Apple's co-selling plan doesn't help its dealers and VARs become as technically literate as they need to be. After all, where's the incentive when someone else does the hand holding? This approach sounds to me like a program with training wheels in that

*See SOAPBOX, Page 24*

## WASHINGTON SQUARE

# It's not all in the name

*If names reflect how a market sees itself, what do we make of today's bizarre, contrived names?*

**Alan Brody**

With the Macworld Expo behind us, we can take a collective breath and ask the big biannual question: How'd they come up with that name?

Names are interesting because they can provide a snapshot of the way the market sees itself at any given time. For example, in the beginning all Macintosh products had to have a Mac prefix like MacBase, MacMailer, MacLion and so on. You knew the business was immature just by looking at all those baby companies hanging on to Apple's skirts.

Then Shiva Corp. broke new ground with a breathtaking ignorance of the mythological and cultural baggage of its appellative choice. (Shiva is a god of destruction in the Hindu pantheon, and an act of mourning in Judaism.)

Nowadays companies have realized the importance of stiffening their image. But in doing so they have found some pretty inventive ways of violating the rules of common sense. And as the Mac community makes its way to corporate respectability, companies are haunted by ever more excruciating gaffes.

At the top of that list is Blackhole Technologies, which sells — that's right — a unit that converts your data to and from ... what? A nine-track mainframe drive? Or maybe that place in the universe where all your left socks migrate from the laundry room? My vote goes for the sock place.

At the same level of myopia is a company called — appropriately — Mirus. The company says the name is from Latin and means amazing. Great. Remind me to use that in my conversations some time. To most people it means nothing at all, so they pronounce it "mirrus" as in "mirrors" for fear of sounding like "mire-us."

Claris is another one. Some people consider it onomatopoeic as in "it sounds clear," which is what the name means in Latin. I think it sounds like an unfortunate portmanteau word — a combination between "Clarabelle the Clown" and "Software." Then again, I could be wrong — an awful lot of people liked Clarabelle the Clown.

Now that accounting software is coming into its own, isn't it about time Layered shed its idiotic name? What are they selling anyway — phyllo pastry? Besides, its salespeople must be getting sick of the bad jokes. As for the people at Satori — is Zen really the way of accounting software? Right, a cuff on the side of the adding machine. Or, one hand clapping.

I'll give the people at Mediagenic credit for knowing when to bail out and sell their Macintosh products under the TENpoint0 label (which is not too shabby) and reserve the former name for their corporate use. But still, where did they get Mediagenic? Were they thinking of "photogenic" or "hyperallergenic?"

How about Coral Software, maker of Logo and LISP? When I think of LISP I think of barriers because of its difficult use. When I think of Coral I think of reefs. What are they saying — "Great Barrier Reef?"

Perhaps the folks were just thinking of a casual day at the beach, which is what Silicon Beach Software must have been doing. Unfortunately that company will have a problem as it moves from fun and games to serious business graphics.

Rebuilding its booth and toning down its corporate beach shirts just won't do it, I'm afraid. Unless the company plans to go into the digitized surfboard business, I advise it to get rid of the "Beach." It might even take a closer look at "Silicon," which is OK when you're talking about chips but not software.

Fans of Bob "The Bear" Hite will cheer when they hear of American Liquid Light because they'll know someone else out there was inspired by Canned Heat. But what are they selling? And show me the CAD buyer who wants to do his work in Dreams. Someone at Innovative Data Designs is going to find himself with a serious positioning problem.

Compuneering is not a bad name for a civil engineering outfit that used to be called Erez Anzel Software, but the name still sounds contrived. Good names are seamless, but here you can see the combination. Besides, it sounds like Walt Disney's Imagineering and that may not be something bridge builders welcome. On the other hand, the company's identity graphics are good.

Giméor will have trouble with its moniker. Architrion is an OK name for architectural software, but it's pretty contrived, too. And I have yet to meet an American who can wrap his or her dentals around Giméor (or "jih-me-or"). Europeans often overlook the cultural bias of software buyers, and unpronounceable names don't help.

The only company with a really French name that was successful in America is Schlumberger ("shloom-ber-ghay"). But that was only because it had a lock on its diagnostic technology and because its American customers got a kick out of saying "Slumber-jay." What are these people going to do? Say "Gimme-an-O"?

If you are in the market for a specialized text editor for architects, don't buy ArchiText. It has nothing to do with the building trades. No one is exactly sure what it has to do with. The company says it is some form of hypertext, but you wouldn't know that from the name.

Finally, there is Hard & Soft, maker of SCSI cards and hard drives. That's its name! Let me guess why — because its software is hard and its hardware is soft? That may not be the case at all. But when the name is off the mark, how the mind wanders. ... □

## SCREEN SHOTS/*Louis Dunn*

**The C.E.O. previews the new shipment of management tutorial discs.**

## ROUND ROBIN/*Technology*

# Mac needs color coordination

*A standard based on Color QuickDraw is needed*

**Joel West**

Although the Mac II has sophisticated color capabilities, users have no way to define colors absolutely. This means that the same color displayed by different devices will appear as different hues.

What might have seemed an esoteric point a year ago has now increased in importance for developers of color peripherals. Many have concluded that the Mac needs a standard for rendering color — one that goes beyond PostScript and application-specific formats. Such a standard must be based on Color QuickDraw for three reasons:

- it is used for screen display;
- it is the basis of PICT2, the interchange format for documents and the Clipboard; and
- it provides the standard interface between an application and a color printer.

Color QuickDraw specifies colors in terms of red, green and blue components. It does not define what red, green or blue mean. That poses a problem because each output and display device has different color characteristics and limitations.

For example, you digitize a color video output or scan a color sketch into color PICT format. After displaying it on the screen in a paint program, you might want to print it on a film recorder or wax-transfer printer, or output a new video signal to a videocassette recorder.

The way things stand, no two images — original, screen, film, paper or video — use the same colors. This will be readily apparent to even the untrained eye.

While this problem exists on other computers, Macintosh owners have come to expect everything to work right without any effort on their part. And they will scream when they discover that color is not WYSIWYG. When pressed, software vendors will point the finger at hardware vendors for the problem. This makes it likely that most (if not all) responsibility for device-independent color rendition will fall on makers of peripherals.

Traditionally, Apple assumes this role, but the company usually waits to solve such problems until it comes out with competing products of its own. Third parties are unlikely to delay their sales until Apple offers an official Mac standard.

All is not lost. Both simple and complex solutions have been designed by others to address the problem.

A simple solution comes by way of Adobe's Illustrator 88. Here, the user matches the screen display of nine reference colors to a printed sample of the same colors, providing a rough equivalent between the screen and output images.

Kodak has been working to define another standard, which can be seen in the proposed color addendum to international standard document architecture, ISO 8613. The ISO proposal allows colors to be defined in terms of RGB values, with each of the RGB primaries as well as white calibrated in absolute terms. The latest revision of the TIFF (Tag Image File Format) specification uses similar definitions for these four reference points. The approach adopted by the ISO and TIFF requires a program to understand the calibration information to obtain accurate colors. In addition, intensive calculations are required to remap complex images so that colors are accurate on the screen.

The ISO/TIFF approach has major flaws as a near-term solution for device-independent color rendition. For one, both applications and hardware have to be modified before they can take advantage of the approach. A standard requiring significant effort would likely be ignored by many developers. And if such a standard were successful, the steps taken to ensure compatibility could interfere with a more general solution that Apple might later provide with QuickDraw.

I've talked with hardware and software developers, all of whom want to tackle this issue. Such an effort cannot succeed without also informally consulting Apple, even if Apple engineers won't reveal their long-term plans.

The interim solution may be to adopt the viewpoint of the most naive users. If they pick a color that looks like cherry red on screen, then that color (a QuickDraw RGB value) should always be displayed or printed as cherry red.

The effort to provide such color fidelity may be enormous. But the consequences of ignoring the problem are even larger. □

# LETTERS

*Continued from Page 22*

*If there was an "overstated threat," as Odom charges, it came from one of his own employees, George Johnston. But oil industry experts consulted by MacWEEK indicated that Johnston's reading of the potential dangers of hydrogen sulfide is basically correct.*

*As far as sewage treatment at the Nort h Slope oil fields is concerned, it's worth noting that the Trustees of Alaska, an environmental watchdog group, has filed suit against ARCO charging violations of the Clean Water Act at the Kuparak field on the North Slope.*

## Other symbolic algebra programs

While Mathematica (Reviews, Aug. 23) is an exceptional program with remarkable graphics capabilities, other symbolic algebra programs exist. A particularly fine "industrial-strength" application is Maple from the University of Waterloo. Maple is popular with serious users and the latest version (4.2) is outstanding. It has been ported to machines ranging from the Mac Plus to the Cray 2.

**Steve Crandall**
**Basking Ridge, N.J.**

# SOAPBOX

*Continued from Page 22*

Apple's efforts to help the channel are only hurting the channel.

Then there's the issue of channel size.

I think Apple would like to increase the current Mac distribution capabilities (which would be wise at this point) to meet existing consumer demand. I see the company taking two smart steps in this direction.

First, it seems to be increasing the number of VARs in the scientific/engineering areas. Apple already has about 100 VARs, with 60 or so having recently completed training by Apple. Sunil Chawla, CADD solutions manager for the engineering scientific group, said that Apple's goal is to have about 300 engineering/scientific VARs by the end of fiscal year 1989. These VARs will thoroughly know and understand 12 to 15 scientific and engineering software products.

This is definitely an important step in trying to increase the size as well as the technical proficiency of Apple's distribution channel. But Apple has overlooked one very important group of sophisticated and well-capitalized VARs, and I'm not sure why. These are the disenchanted IBM VARs who regularly sell to corporate America.

These people come endowed with two qualities: They are technically knowledgeable (a requirement when selling IBM-type machines), and they are experienced at selling connectivity and high-end solutions to the group Apple has been trying to reach — namely, corporations.

This group becomes especially attractive when you consider another Apple strategy borrowed from IBM: that of establishing value-added dealers within major corporate accounts.

## *The Mac's success depends on more than one supplier.*

Apple has entered into agreements with Boeing and Du Pont, for example, that have these corporations' internal VADs purchasing large quantities of Macs, then handling the distribution and support services throughout the company. Their success in this area could be enhanced by some knowledgeable VARs from the IBM channel. These VARs add value through service, and they know what the corporate customer wants. What's more, they are already selling to these customers.

The combination of internal corporate VADs and experienced IBM VARs would provide three major benefits:

- enhance Apple's credibility when trying to sell the Macintosh as truly a high-end productivity tool;
- encourage credible VARs to sell the Mac, thus enlarging the current distribution channel;
- enable Apple to become a non-competitive element in its distribution channel.

Imagine the dynamics of it all! The distribution channel would be enlarged; hence it would generate a larger installed base for developers of Mac software. This in turn would create greater demand for this dynamic CPU.

Here's where some people might say they have problems with my reasoning. "But," they point out, "if you widen the distribution channel, Apple will have to crank out more Macs to supply the demand, reducing prices and lowering our margins."

These people may be right, given the current circumstances. And this is where things get a bit sticky with only one source for the Mac.

If you recall at the beginning of this article I declared the success of IBM and various clone manufacturers stemmed from their having a large sophisticated distribution channel. To go one step further, I feel that the Mac's success also depends on a larger channel and — this is crucial — more than one supplier, just as the overwhelming success of the PC required more than just IBM. The combination would be awesome.

Oh well. Where is the esteemed Gordon Campbell of Chips and Technologies when you really need him? □

*Ken Goodman is president of Guerilla Marketing Strategies of Redmond, Wash. He previously was the vice president of marketing at Generic Software Inc.*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# *Overheads In An Instant...*

# *Slides Overnight...*

# The Mac's got the place covered

*The hospital and its 54-acre grounds are a safer place to visit, thanks to the Macintosh*

BY SUZANNE WEBER

PROVIDENCE, R.I. — It's the middle of the night. You've been visiting your aunt in the hospital and now find yourself walking alone in a deserted parking lot. You know it's late to be in such a spot, but Aunt Vivian couldn't sleep and she wanted you to play gin rummy. As you walk to your car, you hear footsteps behind you.

You quicken your pace. You catch a glimpse of two potential assailants, and you decide you're really in trouble. You break into a run. Fortunately, you spot what looks like a flagpole with a flashing yellow light on top, and a "Help" button on it within reach. You push the button and, thanks to the Macintosh, you can be sure that help is on the way.

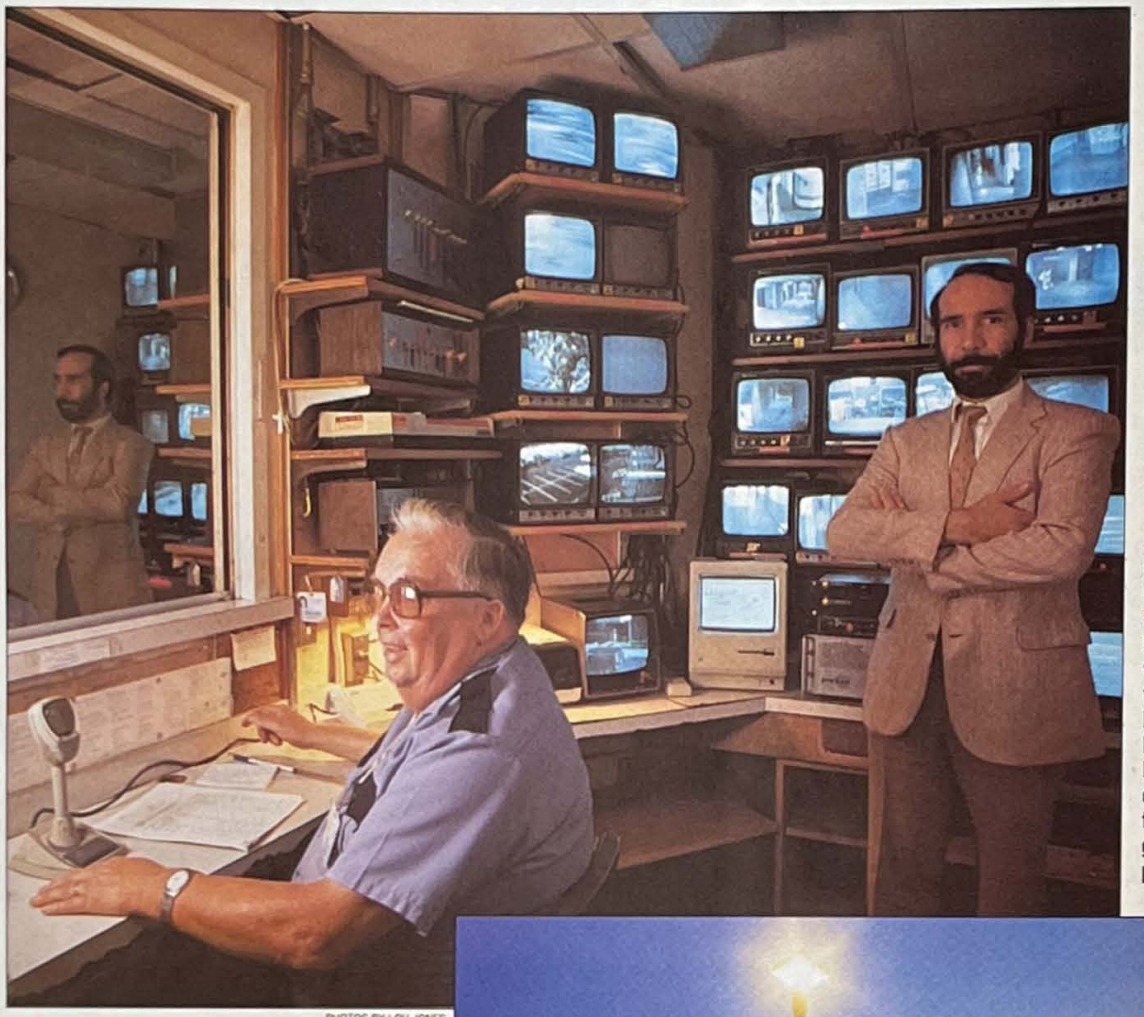
Here at the main security office of Rhode Island Hospital, the guard on duty sits in front of a Macintosh 512K. When you push the "Help" button, a map comes up on the screen with a flashing dot showing the exact coordinates of your distress call. Reading the information off the computer screen, the guard is able to give the nearest patrol car the exact location of the problem and the quickest and best way to get there.

Rhode Island Hospital, a teaching hospital affiliated with Brown University Medical School, owns 400 Macintoshes. And while 399 of them are being used for fairly standard hospital applications, one of the 400 has a unique function in the world of hospitals and computers: It's helping to make the 719-bed hospital and its surrounding 54 acres safe for patients, visitors, staff and students.

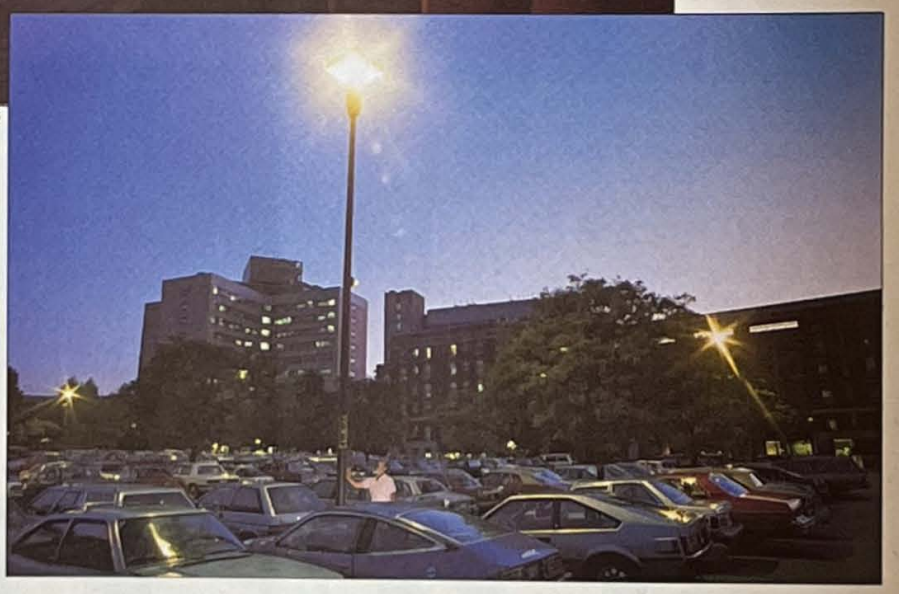
Three years ago, RIH bought a ProCom 100 alarm system with 15 remote alarms from ProCom Corp. of Mount Vernon, N.Y. Light poles interspersed throughout the facility were modified by adding Help buttons and flashing amber lights. When a Help button was pushed, a radio transmitter would send a signal to the CPU 100 in the main security office and a digital code would come out on a printer. The security officer on duty would then refer to a chart that matched code numbers to light towers. Once the officer had pinpointed which light tower had been activated, he or she then could notify the patrol car nearest to that location.

Problems with the system arose because of the high turnover in the 33-person security department. During the course of a year, as many as 30 different people may operate in the dispatcher position. Because the hospital complex is very large and the number of remote alarms grew, it was taking too long for the new security guards to sufficiently familiarize themselves with the locations of each of the 50 or 60 "help towers." And because the officers had to refer to a chart, too much time was elapsing between the initial activation of the Help button and response to the call.

Within six months of the hospital's purchase of the original security system, Ray LaFrenaye, an electrical engineer in buildings and grounds at RIH, realized that the hospital needed a more efficient and easy-to-learn system. He approached John Pezzullo, director of the Center for Information Technology at RIH, who, LaFrenaye said, strongly recommended the Mac.



PHOTOS BY LOU JONES



**John Pezzullo (left) director of the Center for Information Technology at RIH, in the hospital's Mac-controlled security headquarters. More than 50 lighted "help towers" (below) make the hospital grounds safer places to walk.**

Pezzullo and LaFrenaye worked together to figure out just how the Macintosh could help them improve the existing security system. "We thought it would be better if we could actually show [security personnel] a map of the campus at the time of the help call, as well as show them from which light tower the call had originated," Pezzullo said.

The pair asked Bob Napier, who was then the systems programmer in RIH's data processing department, to work with them on developing a program to their specifications. Napier, whom LaFrenaye called an "expert," developed a program in Microsoft Basic that allows the Mac to read code sent to it through an RS-232 port. LaFrenaye then drew 16 maps of different sections of the RIH campus, using MacPaint from Claris Corp. of Mountain View, Calif., and incorporated them into Napier's program.

With the program, the Mac receives digital information from the CPU 100 located in the security office. The CPU 100 receives signals from the radio transmitters located in the parking lots and converts the information to digital form. Once the program identifies which light tower has been activated, it finds the corresponding MacPaint map of that part of the campus and displays it on the screen, with the light tower represented as a flashing dot. Should another alarm come in while the first alarm is still on the screen, the subsequent alarm information is saved and represented as an "alarm-pending button." If other alarms are pending, they will be displayed in the order in which they were activated.

"The Mac 512K with a 400-Kbyte internal disk drive was the only inexpensive computer on the market that could handle this kind of program and handle it well," said Pezzullo, who is upgrading the system to 1 Mbyte of RAM and adding a double-sided floppy drive.

Despite the system's effectiveness, RIH officials said they have no plans to try to market the program elsewhere — in part, suggested LaFrenaye, because no one has investigated its marketability. LaFrenaye said that the application is highly specialized and pointed out that it would be difficult to find interested parties with the same security setup and concerns as RIH.

Bill Shipp, the director of the Institute for Research in Information and Scholarship (IRIS) at Brown University, was responsible for bringing the Macintosh into RIH within months of its initial release. "Many hospitals were primed for something other than IBM 3270 mainframe types of applications," said Shipp in explaining the decision. "In hospitals," he added, "people are confronted with so many different, complicated machines every day that they don't want a computer that comes with voluminous manuals. They don't have the time to train on another complicated machine. With the Macintosh, they can usually accomplish what they need to quickly."

At RIH, the commercial software currently in use includes Microsoft Word from Microsoft Corp. of Redmond, Wash., for general word processing; Microsoft Excel for budget management; OverVUE, a database manager from ProVUE Development Corp. of Huntington Beach, Calif.; SYSTAT from SYSTAT Inc. of Evanston, Ill.; and Statview from Brain Power of Calabasas, Calif., for advanced statistic work and grant accounting. And, like the security application, a number of specialized programs are written by RIH personnel in Microsoft Basic.

One of those specialized programs was written by Doug Shearer, an associate physicist in the radiology department at RIH,

*See SECURITY, Page 29*

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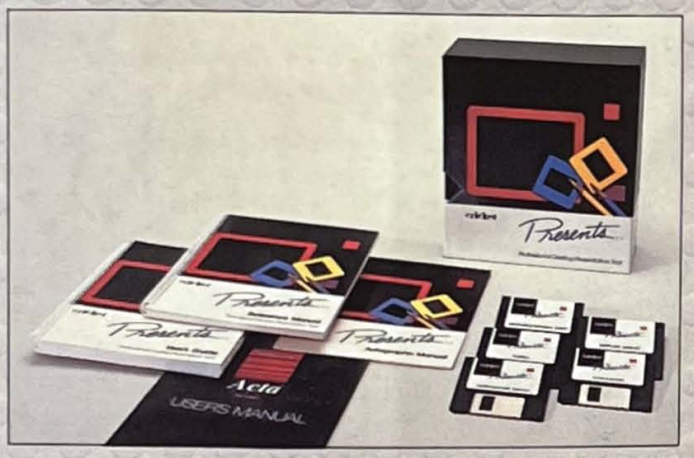


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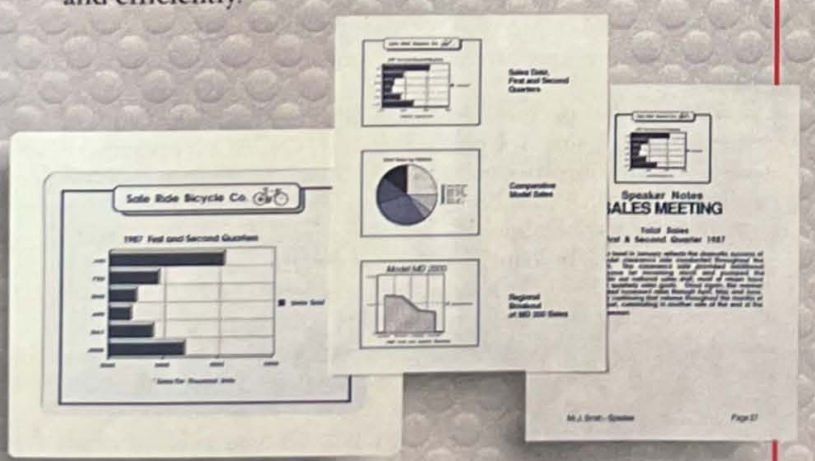


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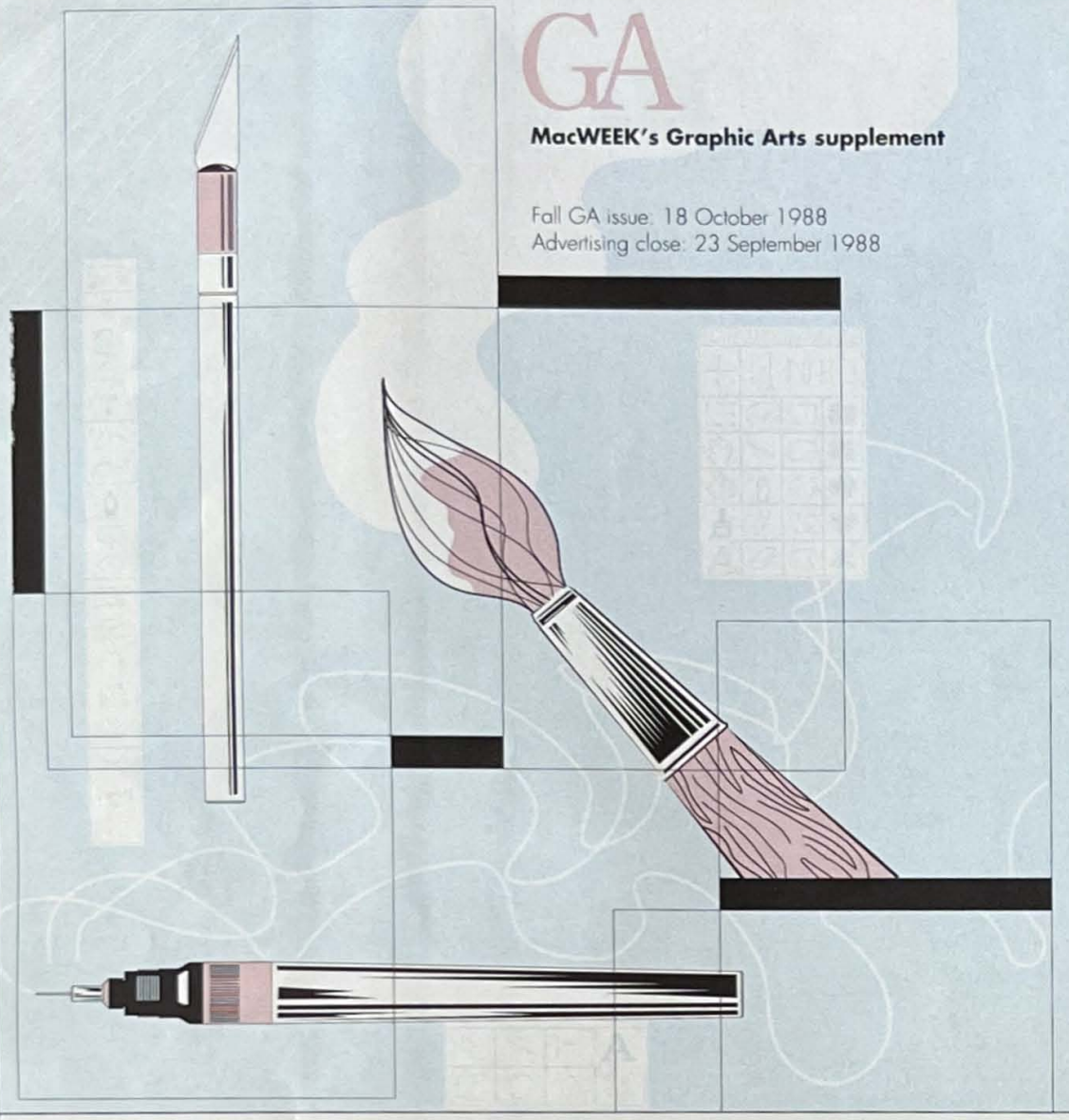

# GA

**MacWEEK's Graphic Arts supplement**

Fall GA issue: 18 October 1988
Advertising close: 23 September 1988

**Setting the standard**
MacWEEK has united desktop publishing's various disciplines in one reference source. GA, a highly-graphic and technical compendium of Macintosh publishing and presentation technology, first appeared as a stand-alone supplement May 17. Now a regular weekly feature in MacWEEK, GA returns in supplement format October 18, 1988. Six GA supplements will be published in 1989.

**A forum for graphics professionals**
In GA, advanced Macintosh users find out how to create high-end production systems and information on advanced applications.

- Four-color separation
- Gray-scale monitors and half-tones
- Newspaper design systems
- Digital font design
- Understanding color usage
- Calibrating imagesetters for four-color separations
- Correcting separation dot patterns and screen angles

Representing MacWEEK's on-going commitment to the Macintosh graphic arts industry, GA is the most technologically authoritative publication on the market — there is no other computer publication or publishing trade journal that matches GA.

**Next issue/closing dates**
The Fall GA will be mailed with the October 18 MacWEEK. All advertising reservations and materials are due no later than September 23.

**Rates**
Rates for this issue will be the same as those in effect with MacWEEK rate card No. 3.

**Bonus distribution**
Copies of GA will be distributed at the Macintosh in Business Conference and Exposition in Anaheim, November 1-3 and at various graphic arts seminars this Fall.


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*The G330-70 color thermal transfer printer produces a full-color 8½" x 11" page or transparency in about 80 seconds.*

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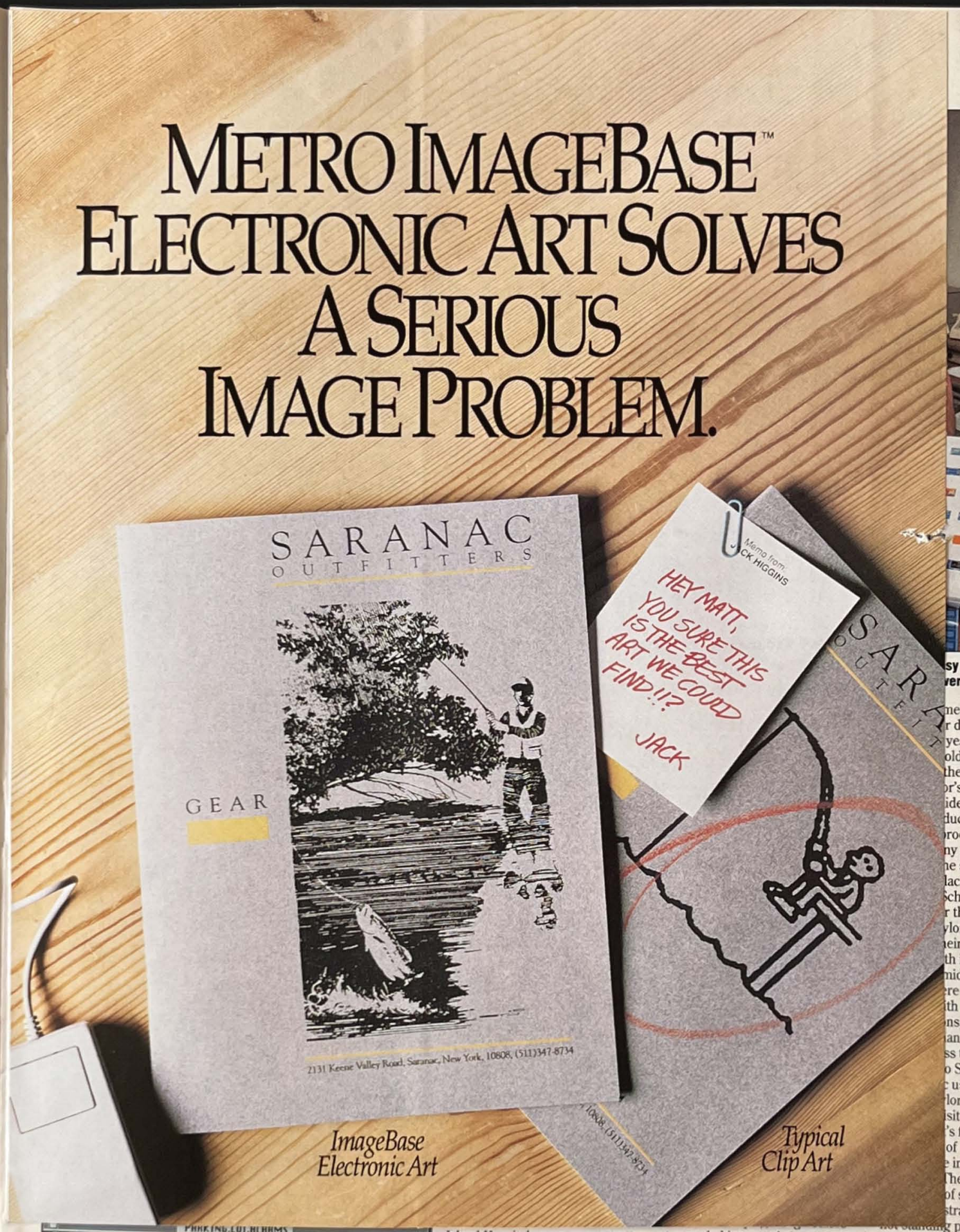

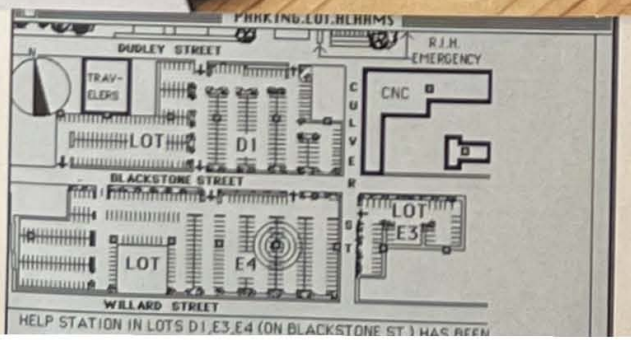


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Island Hospital, especially the security guards who watch their screen for the flashing dot distress calls. Thanks to this use of the Macintosh, would-be assailants in the hospital parking lot can be quickly located and apprehended, leaving visitors free to ponder that most

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It was not surprising that Schmidt was the one who came up with Easy Slider because

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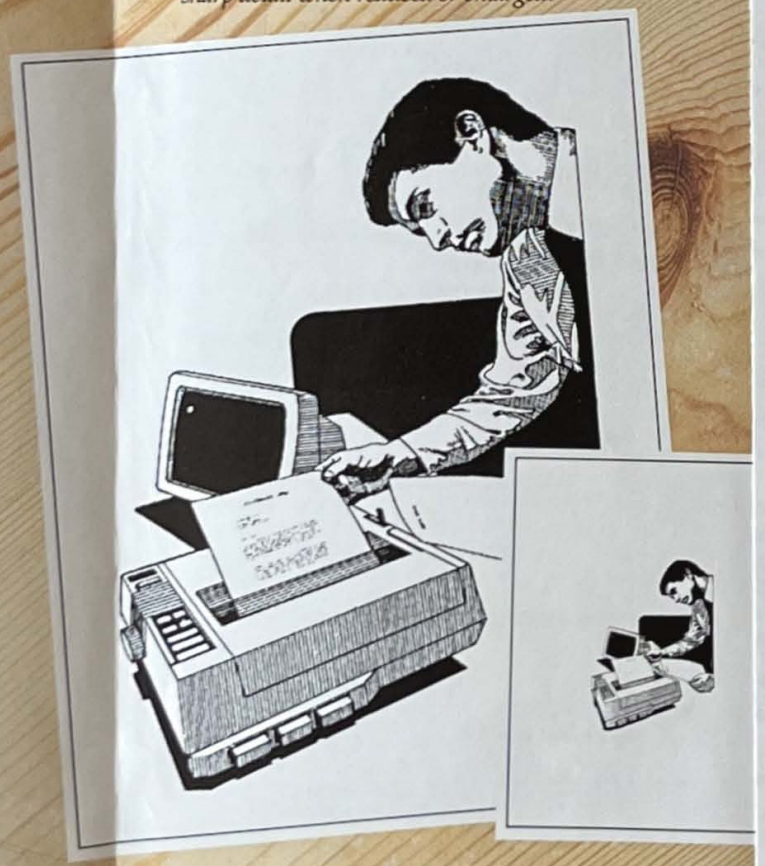



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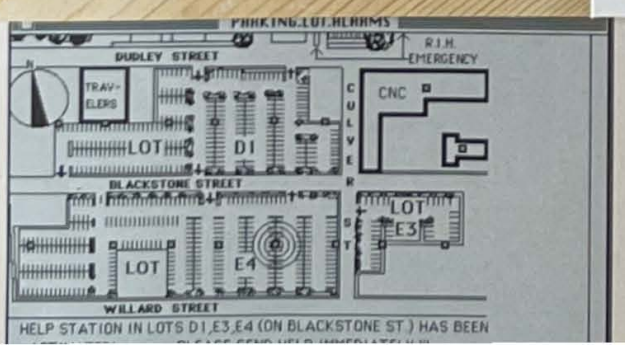


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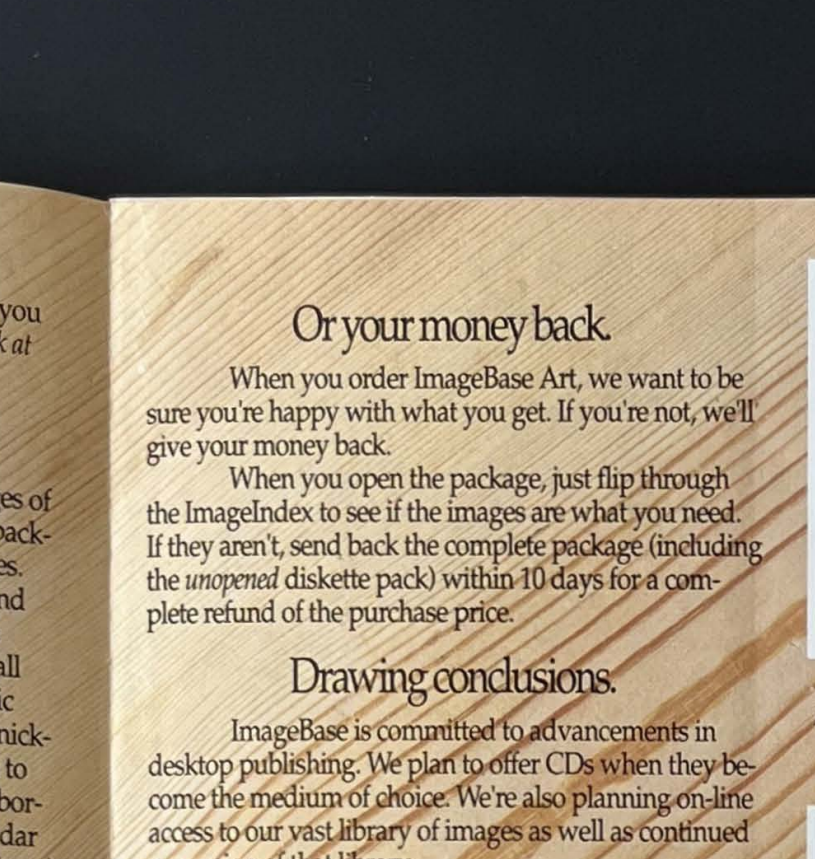

***Typical clip art.***
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| **Price per package:** | **$145** | **Image resolution:** | **300dpi** |
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### System requirements:

| | |
|---|---|
| Computer: | Macintosh 512E, Plus, SE, II and IBM systems configured for desktop publishing. |
| Storage: | A hard-drive is strongly recommended. |
| Printer: | Laser printer. |
| Applications: | *PageMaker, Ready,Set,Go!, Ventura Publisher or XPress.* |

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IMAGE BASE

The Art of Electronic Publishing

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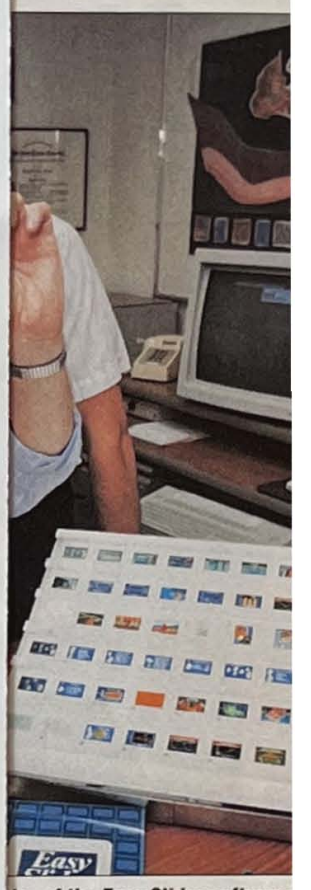

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IN PROFILE/

# Illustrati has desi

*A growing forc*

BY JIM LEEKE

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## SECURITY

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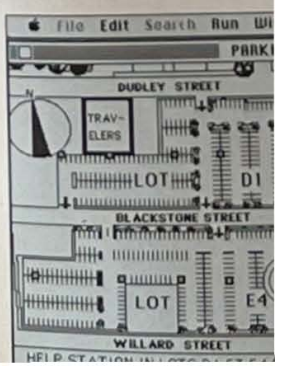


# Illustration department has designs for the Mac

## *A growing force in visual aids*

BY JIM LEEKE

HOUSTON — While Random House or Disney studios might not be envious just yet, the Baylor College of Medicine here is producing some award-winning publications and slide presentations with the help of the Macintosh.

Little more than a year ago, the college's Medical Illustration and Audio Visual Education Department had no Macs at all. Today it has 20, with more on the way. In the words of Diana Wren, the supervisor of graphics design and a computer novice before the Macs arrived, "It's been kind of a fast year."

The charter of the 45-member department, according to its director, Herbert R. Smith Jr., is to produce "visual materials for support of the school's programs in education, research and patient care." On the print side, the department turns out about 50 booklets, brochures, documents, manuals and television scripts a month for its "clients," the 3,400 full-time faculty and staff who are scattered through the college and in eight affiliated teaching hospitals, five of which are nearby in the surrounding Texas Medical Center. The medical college is no longer associated with Baylor University in Waco, Texas, having split in what Smith called a "friendly divorce" in 1969.

Much of the department's work is printed in medical journals and textbooks, according to Smith, but some of it is not printed at all. Instead, the department turns out about 1,300 computer-generated slides a month, many of which are projected onto silver screens at medical conferences around the world. Often the slides illustrate talks by such Baylor superstars as Dr. Michael DeBakey, the renowned heart surgeon.

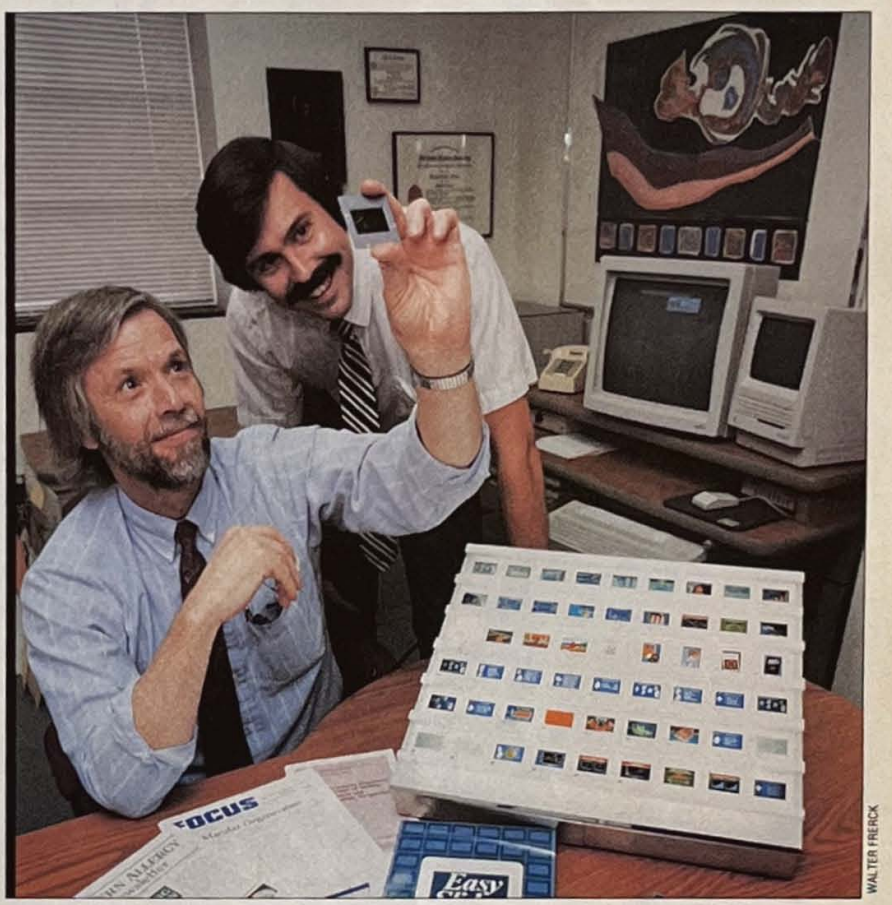
This dual print and visual responsibility is a natural for the Mac, and Kevin Long, a senior systems analyst in Baylor's information center, praised the department's use of the Macs as "pretty innovative [and] very progressive among medical-illustration departments around the country." Eighteen of its Macs are SEs and the other two are Mac IIs, one of which acts as a file server. All 20 are linked in a local-area network using AppleShare and PhoneNet.

The majority of the work here is still performed with traditional paste-up methods or on higher-level design stations; only about a third of the printed materials and a quarter of the slides are designed on Macs. But the Mac percentages are growing, with Baylor "going more and more toward the Macs," according to Smith.

Before Macintoshes were introduced into the department in July of last year, Smith and several of his top supervisors were already Macintosh enthusiasts. They owned Macs, used them at home and occasionally brought them to the office. But some of their colleagues had seldom, if ever, used a personal computer anywhere. "I think we were all a little apprehensive at first," said computer novice Wren. "We were from the old school of design, [accustomed to working] on a drawing board. But I think everyone is pleased with the result."

Wren's five-person section now uses PageMaker from Aldus Corp. of Seattle to produce a variety of pamphlets, fliers and brochures — projects that can take anywhere from a few hours to three weeks to complete. Since graphic designers work faster on Macs — Wren estimates the Macs can cut project time by a third over the old methods — designers can experiment with more layouts and actually improve their design skills, Wren said.

On the visuals side, the many slides the department produces "pretty much go the whole range, from strictly text to fairly sophisticated illustrations," Smith said. For preparing Mac slides, which generally involve fairly simple charts or text, staffers commonly use Cricket Graph from Cricket Software of Malvern, Pa.; Canvas from Deneba Systems of Miami; MacDraw from Claris Corp. of Mountain View, Calif.; and MiniCAD from Diehl Graphsoft of Ellicott City, Md. More complex visuals, however, usually are created on a separate minicomputer-based $100,000 Management Graphics Inc. (MGI) slide system. All the slides are actually shot on an industrial camera, also called a film recorder, that is part of that system.

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**Herbert Smith (front) and James Schmidt, creator of the Easy Slider software program, examine Mac-created slides. The pamphlets in the foreground were also produced using the Mac.**

The staffers who are least likely to use the Macs are the six highly specialized medical illustrators. Unlike their colleagues — the artists, TV and film producers, photographers, clerical workers, and Mac systems administrator — who use Macs for applications ranging from graphics to word processing and spreadsheets, medical illustrators "actually don't use the Mac that much," Smith said. "Their drawings tend to be more detailed and unique." But here, too, change is swinging the Mac's way, according to Smith, with software generally becoming more sophisticated and illustrators feeling more comfortable the longer they work with the technology. Eventually, instead of just flashing text describing a bad pancreas, Mac-produced slides will graphically display the islets of Langerhans, the irregular groups of endocrine cells in the pancreas that produce the hormone insulin.

Making Mac slides here at Baylor became feasible in the first place because of Easy Slider, a software package that was the brainchild of James H. Schmidt, the assistant director of the illustration department under Smith. Easy Slider lets the artists open any Mac PICT file (from MacDraw, for example); assign colors to patterns, text and objects; and size and position as many as four objects in one slide frame. The program then translates this data into the Business Graphing Language, acceptable to the MGI slidemaking system. Without Easy Slider, according to Schmidt, "we would have no way to get [Mac slides] to our camera. This camera is a big advantage and will shoot 4-Kbyte slides in 43 seconds. We'd have to have a lot of little Mac cameras to do the same volume."

It was not surprising that Schmidt was the one who came up with Easy Slider because he'd already proved adept at developing software for Baylor's graphics needs. Four years ago, he wrote netWORD, a Prime minicomputer-based program that the department still uses in some slide preparation. He hit upon the idea for doing something similar with Easy Slider two years ago, developed the package, and then sold it last fall to Management Graphics, the Minneapolis company that supplied Baylor's mini-based slide system.

Easy Slider fills "quite a large gap" in Macintosh product offerings, said Paul Kielty, MGI associate product manager, who added that the company already has sold nearly 1,000 copies of the software. The original version converts black-and-white Mac output into color, but Schmidt is now working on a color upgrade for the Mac II.

The Baylor illustration staff still creates slides on their mini-based system, and at least for now, both it and the Macs serve their purposes, Schmidt said. "But we can do a lot of what we were doing on [minicomputer design stations] with the Mac. For the price of one of those stations, we could get five to eight Macs."

More than 30 medical-illustration departments across the country now use Easy Slider, according to Schmidt. Baylor itself remains an enthusiastic user, and the developer's name and his Baylor affiliation are mentioned often to high-tech visitors here. Seventeen of the Baylor department's faculty and staff clients have their own copies of the Easy Slider package and use the software in designing exactly the slides they want. They then use the department merely as a sort of slide-printing service.

The illustration department, meanwhile, is not standing pat with its 20 Macs: Seven Mac IIs will be ordered soon, and one probably will run A/UX and tie into Baylor's schoolwide Ethernet network, which links micros, minis and mainframes. If that happens, clients will be able to send files directly to the Macs (as 72 Baylor clients do now on the mini-based netWORD stations).

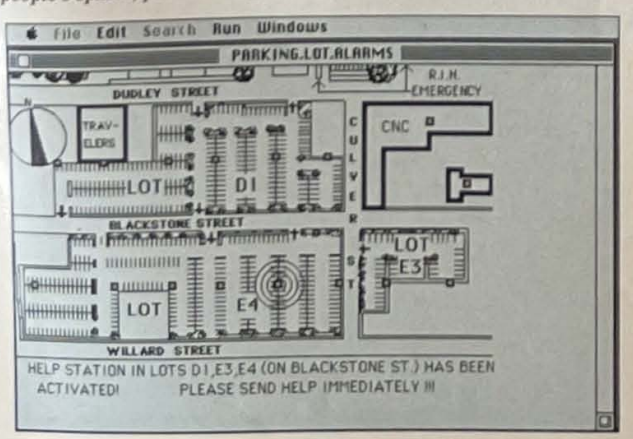
The Mac numbers are rising in the entire medical college as well. Long said there are now 150 Macs out of 1,200 to 1,400 personal computers, and he expects the total to reach 200 by year end. Medical Illustration, he added, was the first Baylor department to "get away from the PC world and into the Macs in any concerted way." Concerted, yes — but not disconcerting. Said new user Wren of the past year: "It's just been wonderful." □

# SECURITY

*Continued from Page 26*

who said that he has found the Macintosh to be an extremely useful and versatile diagnostic tool. "We measure the curvature of people's spines, put that image into the Mac, and work out the therapy from there," said Shearer, who said that the application has been met with skepticism by some of the more established and traditional professionals in the field. "The Orthopedic Professional Society," he said, "still uses a protractor, pencil and paper."

But the Macintosh has won over the people who work on the 400 Macs at Rhode Island Hospital, especially the security guards who watch their screen for the flashing dot distress calls. Thanks to this use of the Macintosh, would-be assailants in the hospital parking lot can be quickly located and apprehended, leaving visitors free to ponder that most important question: How come Aunt Vivian never loses at gin rummy? □

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# A modernist meets the Mac

## *Max Seabaugh blends art and technology*

BY LASLO VASPREMI

*Max Seabaugh is a San Francisco-based artist and illustrator who has created a large part of his work on the Macintosh. After studying painting at Kansas State Teachers College in Emporia, Kan., Seabaugh came to the San Francisco Bay area via Sacramento, where he worked as a designer. Before opening his studio, MAX, in 1986, he did in-house graphics design at Macy's in San Francisco.*

**GA:** Max, we have seen your art in many publications. Your "Good/Evil" illustration for Adobe was a tremendous send-off for the new Illustrator 88, highlighting its unique capability of blending one shape into another. How did this all get started?

**MS:** Two years ago Chris Berg (Macworld magazine's art director) asked me whether I would be interested in doing Mac illustrations for the magazine if they gave me a Mac. This led to an arrangement that resulted in a regular flow of Mac illustrations to that publication. As I established my own Mac style, more and more clients would ask for "something on the Macintosh."

**GA:** So you found that your clients would not just ask for an illustration, but also specify the Macintosh as the medium?

**MS:** Positively. I also like to make my drawings retain this computer-like look, as it's important to me that they stay identifiable as a product of the machine. Using MacPaint or SuperPaint will make the lines look somewhat ragged. Sometimes I will shrink down objects and then enlarge them again, making the bits larger and the jaggies more noticeable.

**GA:** What percentage of your output is created with the Macintosh?

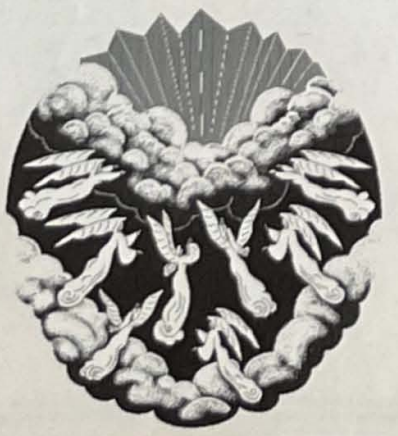
**MS:** About 50 percent at present, but it seems to increase by the day. Interestingly, I find that when a client leaves open the media with which I can create the work, chances are I'll do it on the Macintosh. There's a personal reason for that — I'm a "neatness freak." (A look around Seabaugh's well-organized, clean and stylishly furnished studio confirms this.) When I work with ink and paper and paint, there's always a mess to clean up — pencil and eraser shavings and so on. With the Macintosh, it's as clean as it comes. Everything happens inside the machine.

**GA:** What art or artist influenced your work?

**MS:** The cubists, in the first place. Ever since art school I tried to hide references to paintings by Picasso, Braque or Juan Gris in my work. Abstract expressionism was what was being done when I was in school — Jackson Pollack, Willem de Kooning. All in all, I find that there's a rich inspiration in artwork created at the turn of the century — the modernists. I like all the guys who did weird stuff.

**GA:** Illustrator 88 is much more complex than SuperPaint, so it must have been challenging to create "Good/Evil." How did this work come about?

**MS:** I was asked by Adobe to come up with some sketches showing two polarly different ideas merging. I made sketches of several alternatives, like from cowboy to Indian, from cat to dog, from man to woman. It seems that the good/evil theme was adopted because it carried not only the polarity between good and evil but also offered a transition from female to male, from smooth shapes to sharp corners. The actual work was done at Adobe in Mountain View (Calif.), where I was provided with the right equipment and a lot of technical assistance.



ART BY MAX SEABAUGH

**(Above) Max Seabaugh created "Good/ Evil" as a promotion for Adobe's Illustrator 88. (Left) Seabaugh uses bright colors and slashing lines in his modernist line drawings, such as this image created with Silicon Beach Software's SuperPaint, which he also used to draw the angels (below left).**

**GA:** Here in your studio, I see that you work with a Mac Plus and an external hard drive, using a LaserWriter for output. Are you planning to upgrade?

**MS:** Definitely. Most of my work now requires color. To colorize my drawings presently I need to create one layer for each color separately in SuperPaint, as it offers no color support. I'm fascinated by PixelPaint and the fact that you can preview your work in full color, use blending tools and, once satisfied with the work, color separate it automatically. Of course, it requires a Mac II and a color video card — an expensive proposition. I guess sooner or later I'll buy one.

**GA:** Are there any other advantages an upgrade would offer?

**MS:** I could use more memory and greater speed. It would also help me and my clients to see the finished artwork in full color and make a judgment or correction much earlier in the game. □

# BOLDFACE

## *From pie chart to eternity*

BY EZRA SHAPIRO

I have a nightmare about life in the hereafter that I'd like to share with you. It goes like this: I've just died. My soul has been found wanting — too many nights spent staring at a Mac screen instead of with my family, too many uncharitable reviews of computer products, too many blasphemies muttered while working and so on. A lot of little things, but they add up. It appears that I won't be enjoying eternity twanging a harp.

A pleasant devil in a red three-piece suit hums cheerfully as he leads me off to a small room with a heavy iron door. It groans ominously as he pulls it open. Inside, a solitary dentist's chair faces a screen hanging on the rear wall. Nearby, a projector with a full tray of slides sits on a small table. "Good to have you with us," the devil chuckles as he straps me into the chair. "We'd like to start out with a little presentation. Our graphics department just got a Mac II and a film recorder; they're real tickled with it."

He straightens up and flicks the switch on the projector, which heats up quickly. Smoke rises from the bulb; ozone tinges the air. Because of the straps, I can't watch the devil move to the door. "Have a nice day," he calls. The door swings shut. Suddenly, the projector whirs to life, and the screen before me fills with color. The first slide shows an exploding pie chart, with each slice a different, ghastly hue. A title in Helvetica Bold reads "Sales by Region." I realize I can neither move my head nor blink my eyes. The second slide, equally garish, is a stacked bar graph titled "Western Region by Quarter." I begin to sweat as the horror of my fate sinks in — I am doomed to an eternity of presentation graphics.

The truly frightening thing about this vision is that it is alarmingly close to reality. The Macintosh community has recently been infected with the same disease of presentation graphics that contaminated the MS-DOS world two or three years ago. We're being deluged with software and hardware intended to turn us all into slide-show ringmasters. "Desktop presentations" is the hot new marketing concept, and every Macintosh publication I see has at least one story touting the wonders of the technology.

I have no bone to pick with the manufacturers of the equipment and the software; most of it is of extremely high quality, slick and well-built. I have nothing but praise for

*See BOLDFACE, Page 34*

LOUIS DUNN

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# Better equipment yields full-scale design

## *Novus Graphic Communications exploits Macintosh graphics capabilities*

BY MITZI WALTZ

*The GA section calls for readers to share their design and artwork with us. Mike and Marti Penn of Novus Graphic Communications of Pittsburgh have done just that. We're pleased to show you samples of the work they have produced on the Mac and tell you about their Macintosh graphic art experiences. Keep that artwork coming!*

When Mike and Marti Penn started Novus Graphic Communications Inc. in January 1987, they didn't expect that their small desktop publishing company would turn into a full-service graphics design company in less than two years. "One of the main reasons was that the tools at that time weren't good enough for us to go as a design firm," Mike said. But with the advent of quality gray-scale scanners, the Mac II and programs like Illustrator 88 from Adobe Systems, the company was soon off and running, he said.

Novus' desktop publishing skills are still a big selling point for the agency as it goes after jobs like producing a 28-page visitors guide, Pittsburgh To Go!, for the Greater Pittsburgh Office of Promotion. "We try to present ourselves as a design house producing quality design work, although the Macintosh part of it is a major feature for us," Mike said. "But [our clients] aren't paying for gadgets or gimmicks, they're paying for our brains and abilities."

It takes brains to step around some of the Mac's disadvantages, Mike admitted. Because electronic files are easier to alter than sketches on paper, using the Mac for design "gives [clients] the feeling that they have more of a right to make last-minute changes. We have to balance that out with the time and cost of changing things on film," he said.

Another problem for Novus has been finding Mac fanatics with the proper skills. "We have a lot of illustrators, but not enough layout people," Mike said. Since January, when Novus became an autonomous part of local ad agency Tassone Stevenson Marketing and Communications, the company has had access to a full staff of what Mike calls "conventional" design people. Although they come in handy when a word needs to be manually pasted onto a film original now and then, it hasn't been as easy as he expected to introduce them to the Mac. "There's some trepidation," he said, but "as soon as they have [a Mac] next to them I think that will diminish."

Mike said he blames the lack of skilled Mac layout artists on what he considers the dearth of good art-school computer courses.

The alliance with Tassone Stevenson has given Novus the resources to go full speed ahead on the Mac. Its most recent project was a four-color poster for a Pittsburgh area college. "We're now producing more and more full-color Adobe Illustrator work," Mike said.

The five-person Novus staff uses top-of-the-line equipment, including a Mac II with a 5-Mbyte color monitor, a 40-Mbyte hard drive and a Dest 20/20 scanner; an SE with a Radius accelerator and a Radius Two Page Display monitor; and both a LaserWriter Plus and a Linotronic 100P. Novus is also a beta site for Adobe Illustrator. □

**(Above, right) The golfer was drawn and colorized in Adobe Illustrator and color separated with Adobe Separator. (Right) Novus used Illustrator 88 to produce this smooth, detailed illustration.**

ART BY NOVUS GRAPHIC COMMUNICATIONS

# A square foundation for layouts

BY LASLO VASPREMI

Page design is an art, and so it shares some elements with other art forms. One of these is the grid. The grid is the underlying principle of the printed page, creating a sense of proportion in a way that's similar to the invisible grid in the layout of a Gothic cathedral.

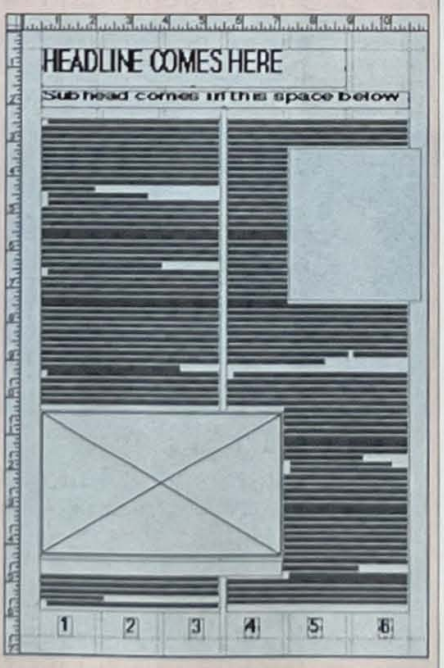
In more practical terms, using a grid ensures that the elements of a layout fit on the page in harmony.

If in designing a publication one plans on two or three columns per page, it's advisable to choose a larger number of column grids. With a six-column grid, for example (see screen dump at right), the two columns can be set in blocks 1, 2, 3 and 4, 5, 6, respectively. Additional elements, such as headlines, pull quotes and graphics, can span across any variation of blocks and still preserve the impression of deliberate construction. If the next subject in the same book requires a three-column layout, the columns can be placed in blocks 1, 2 and 3, 4 and 5, 6.

Designers can experiment with a larger number of grid blocks. A nine-block grid, for example, offers even more flexibility. Two columns could be set in the following variations: Block 1 free, blocks 2, 3, 4, 5 (first column), blocks 6, 7, 8, 9 (second column). Or it can be designed with blocks 1, 2 free, blocks 3, 4, 5 (first column), blocks 6, 7, 8 (second column), block 9 free. Similar variations can result in a three-column layout, allowing an effective use of the white space on the page — always an important consideration.

To emphasize the pattern, the designer may employ horizontal bars that correspond to the invisible grid, thus adding a visible element that emphasizes its presence.

Every design is meant to foster communication, and a well-thought-out grid can help by allowing the designer to present a clear, readable package. This process is bolstered by electronic publishing's faster layout process, which allows the designer to quickly survey a number of possible layouts and choose the one he or she prefers. □




**Using a six-column grid allows the flexibility of either a two- or three-column format.**

# BOLDFACE

*Continued from Page 32*

the products except for some of the awful sample files distributed as product demos. However, both as a graphics designer and a journalist frequently victimized by avid presentation graphics enthusiasts, I can glumly report that 90-something percent of the material produced with this stuff is pure garbage. Effective use of presentation graphics is a difficult and sophisticated art requiring insight and professionalism; most of what I've seen has been knocked out by amateurs with little understanding of the process of visual communication.

On the surface, the requirements for a good piece of presentation graphics are quite simple. It must give the viewer exactly the right amount of information, neither too much nor too little. It must be designed for the correct viewing environment; a slide for a large auditorium should be sparser than an outline for a flip chart handed to an individual. Depending on the situation, it must either be able to stand alone as a complete story or to work as a helpful complement to an accompanying verbal pitch. You'll notice that none of these points represents a fixed, inviolable criterion for judging a piece; they each suggest scales for acceptability. Most of the pieces that fail do so because their creators have misjudged how to target their work; presentation graphics demands pinpoint accuracy.

Over the years, I've watched television graphics mature from simple labels to beautiful screens of superimposed information. Designers spent years of trial and error determining the right amount of data to display for their viewers, then struggled to develop creative styles to go along with the formulas. Even today, you'll occasionally see a screen that fails miserably. And these designers are professionals with extensive training and experience.

Presentation graphics is a very similar medium that calls for the same process of education and experimentation. I would be much happier with the output if I could see any solid evidence that users were approaching projects with some recognition of the difficulties involved. Or at least that professional designers were being hired to add their skills to the process.

But that's not what's happening. I've strained to read tiny type from the back of large halls. I have witnessed atrocities of color and type use that have made my eyeballs ache. I have been bored to tears by presentations where speakers have simply read outlines word for word from the screen. I have received volumes of conference proceedings that reproduce nothing but headlines from slides, thereby giving me the overall flow of the presentation but none of the interesting specifics. I have been led into one-on-one meetings where the other person shut off the lights, turned on the projector, and talked at me for an hour, completely missing the opportunity to establish a more personal contact. Obviously, presenters have as much to learn about the nature of this medium as designers.

Fancy shows are no substitute for human interaction. All too often, I've seen presentation graphics used either as a crutch or as a way to completely avoid that interaction. It is ironic that the technology is being sold as a technique for improving communication, yet used as a method for making it harder.

What more can I say? The tools are with us to stay. They're good tools, but we must study them and proceed with caution. □

*To reach us with tips, comments, disagreements or fabulous Mac art, please send MCI Mail to GRAPHICARTS or write to Graphic Arts c/o MacWEEK, 525 Brannan St., San Francisco, Calif. 94107.*

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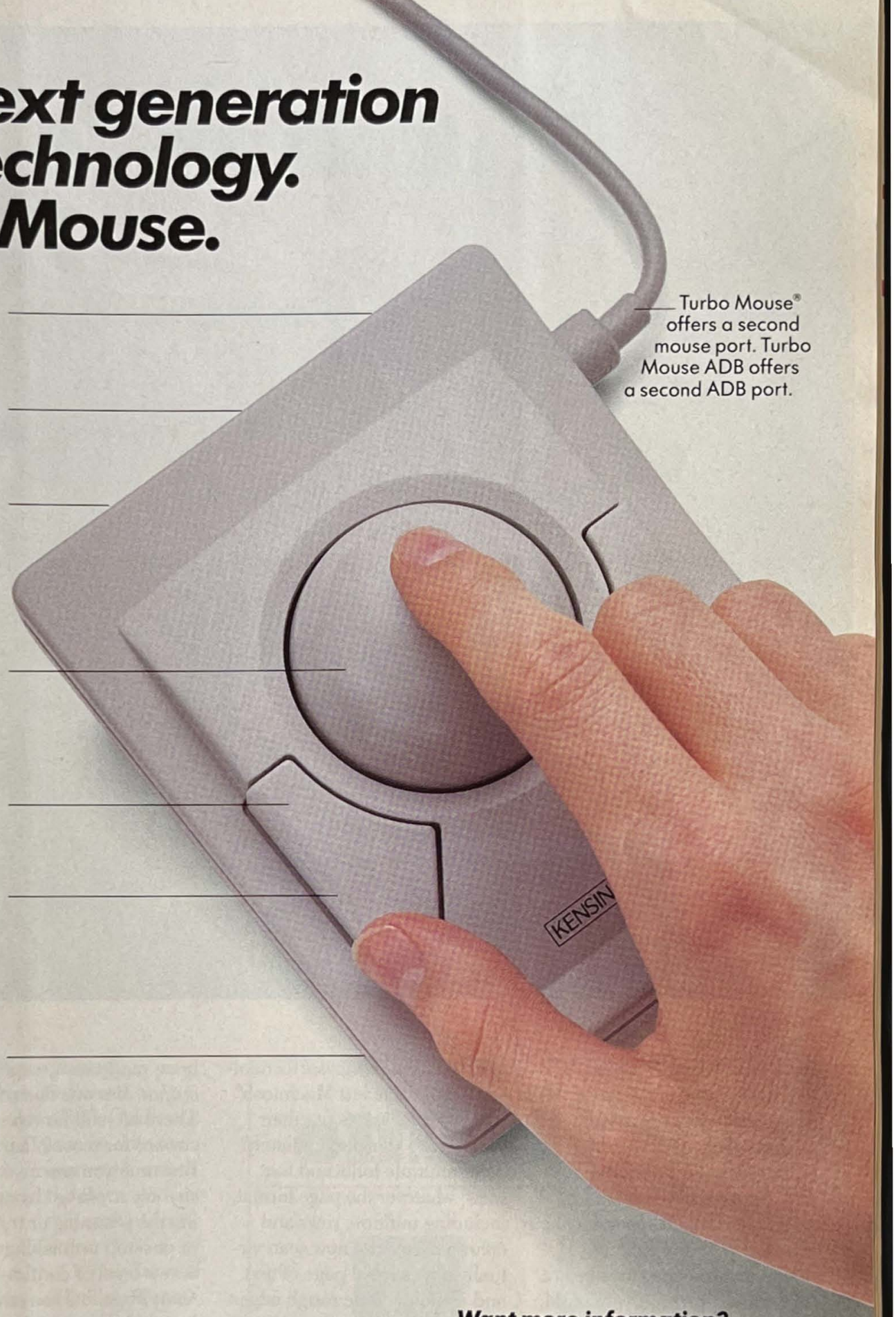


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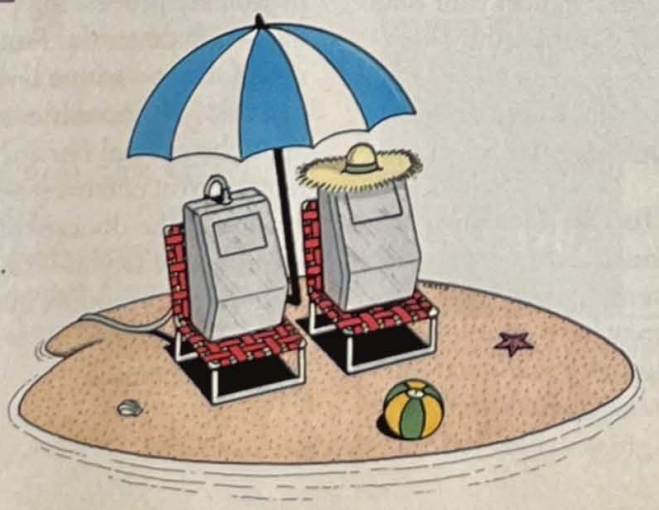

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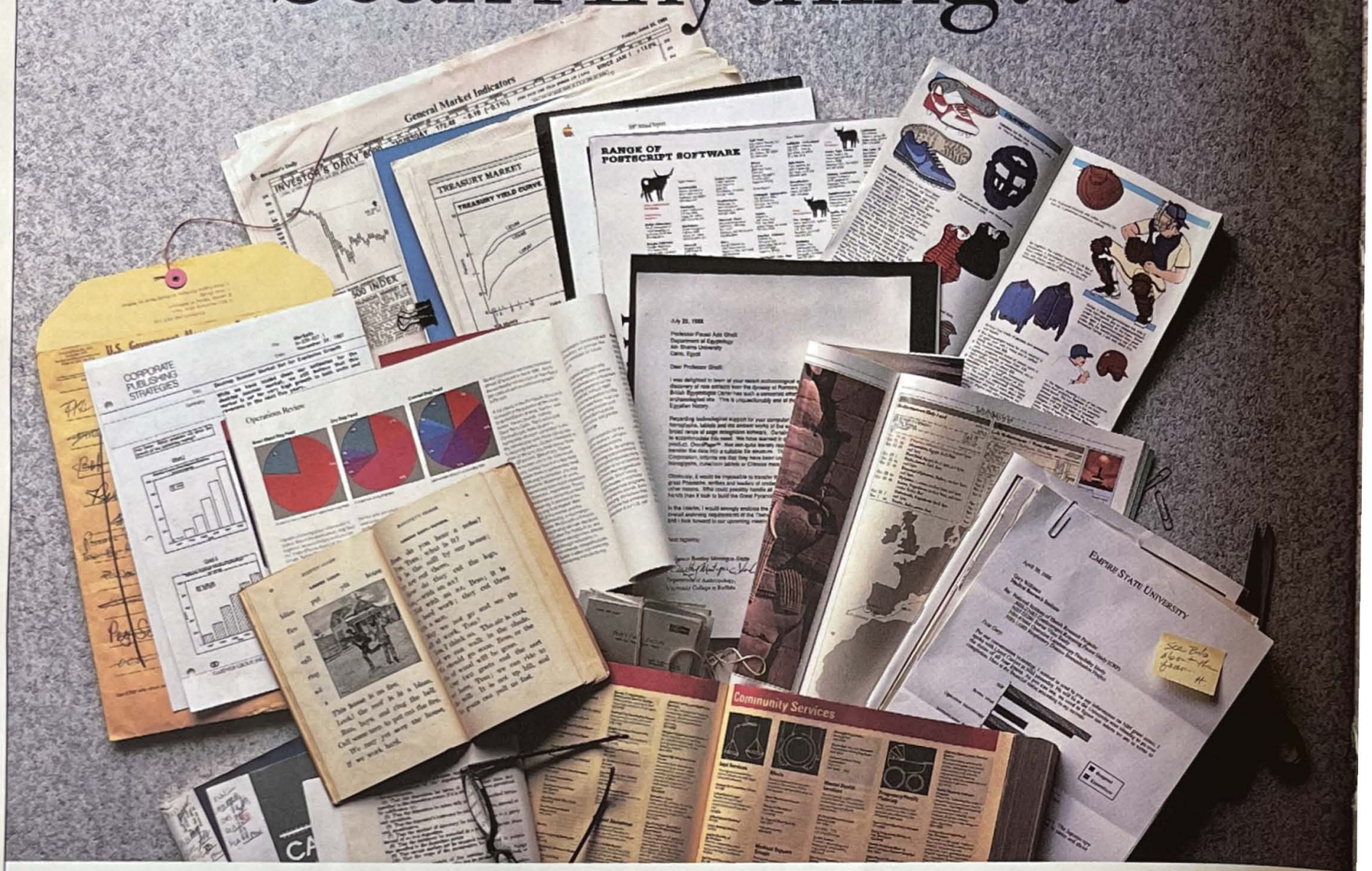


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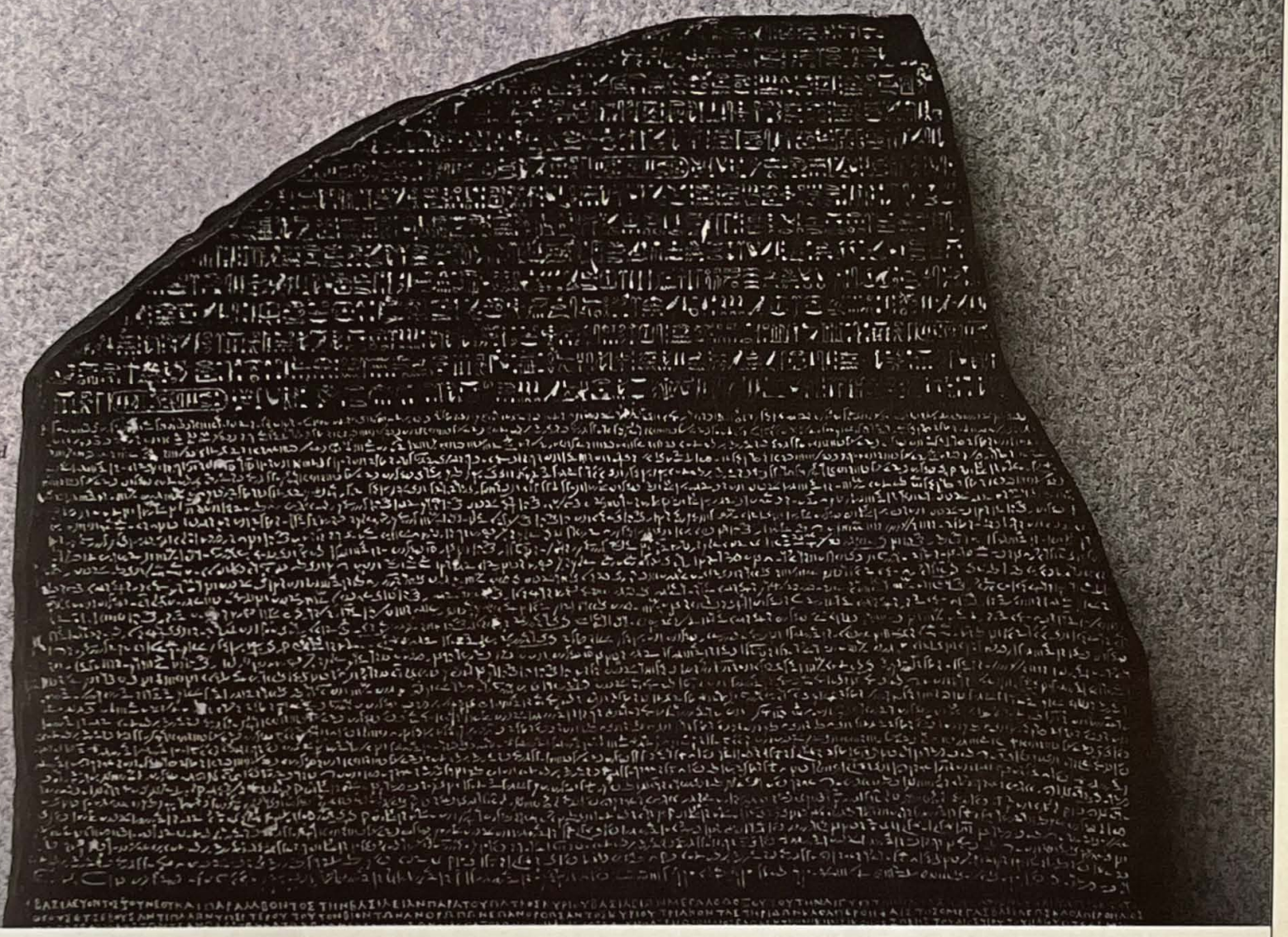

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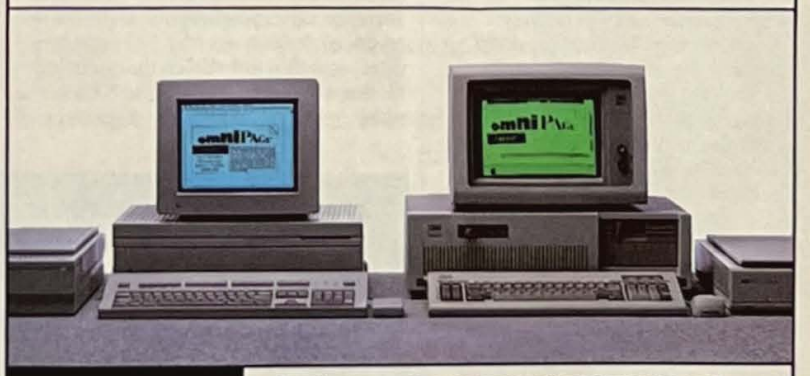

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# Presentations come of age

*A second generation of desktop presentation software challenges the high end*

**Adding movement to presentations can catch the chart-weary viewer's eye. MacroMind's VideoWorks II puts animation capability on the desktop.**

BY KEN FERMOYLE

Desktop presentations aren't new. Many of us did them regularly long before the term came into vogue. We hand-lettered charts, stuck in whatever art we had and ran off overhead transparencies on the office copier. The more ambitious among us used rubdown type. Real sophisticates had access to Kroy lettering machines and Thermofax transparency makers — perhaps we even added some clip art to dress up our offerings.

The alternatives were to give a speech without visual aids, or to turn roughs over to a professional who would design and produce overheads or slides at $40 to $75 each and up.

Suddenly, Macintosh users are blessed with a wide range of desktop presentation tools. They can buy second-generation software that makes preparing visuals almost goof-proof, at least according to one disgruntled graphics services provider. Requesting anonymity "to protect what's left of my business," he said many of his customers now use the new software to produce jobs they once farmed out to him.

Film recorders, once so expensive that only high-volume users could afford them, have reached desktop level in price, size and availability. Prices range from $2,500 to about $7,000; maximum resolution generally runs about 4,000 lines, although makers don't always use the same standards to rate their recorders.

Desktop presenters use a variety of software. Some work with general-purpose graphics packages, ranging from such standbys as MacDraw and SuperPaint to PostScript-compatible programs like Aldus FreeHand and Adobe Illustrator. Others use page-layout programs — PageMaker, Ready,Set,Go! or Quark XPress. These programs certainly offer improvements over the older "desktop" methods, but aspiring presenters can do far better.

Those who regularly create presentations are finding that the more specialized programs currently available simplify their tasks significantly. They also can produce results that compare favorably with work from in-house art departments or vendor graphics services. Available software ranges from comparatively simple, outline-based programs like MORE II from Symantec of Cupertino, Calif., and PowerPoint 2.0 from Microsoft Corp. of Redmond, Wash., to at least one, VideoWorks II from Chicago-based MacroMind, that adds animation capabilities. All are second-generation versions of the first wave of presentation packages.

While Cricket Presents... from Cricket Software of Malvern, Pa., and StandOut! (formerly ReadySetShow) from Letraset USA of Paramus, N.J., are new programs, they include features comparable to second-generation programs. Seattle-based Aldus Corp. also has announced that it will have a presentation program, Persuasion, ready to ship in the fourth quarter of this year. All of these programs support color.

MORE II, scheduled to ship this month, and Cricket Presents... produce files that can be sent directly, via modem or on disk, to slide-preparation services — MAGICorp and Autographix, respectively. Microsoft has an agreement with Genigraphics to produce slides created with PowerPoint, but files cannot yet be produced directly; they must be rekeyed by Genigraphics. According to both Microsoft and Genigraphics, software that will save PowerPoint files in a form that can be read directly by Genigraphics (via modem or disk) will become available this fall.

PowerPoint was the first program designed specifically for Macintosh desktop presentations, so it has had ample time to develop an enthusiastic corps of followers. PowerPoint was the pioneer, and Version 2.0 simply strengthens its position as a real presentation production workhorse. Besides color, it now provides templates with built-in formatting, and includes a spelling checker and a find-and-replace function. It also imports Encapsulated PostScript files.

Gene Ledbetter, an engineering section head at a Proctor & Gamble plant in Cincinnati, Ohio, gives a lot of presentations, averaging one about every 10 days. He reports that not only has the quality of his presentations improved dramatically since he began using PowerPoint, but that it takes less time to create them. He said he appreciates the flexibility that the slide sorter feature provides in arranging presentations. "You can scan an entire presentation at a glance," he said, "and then rearrange it easily without disturbing your notes for individual slides."

Ledbetter has also found PowerPoint to be an attractive training aid, and he uses it to

*Continued on Page 40*

## Film recorders no longer a luxury

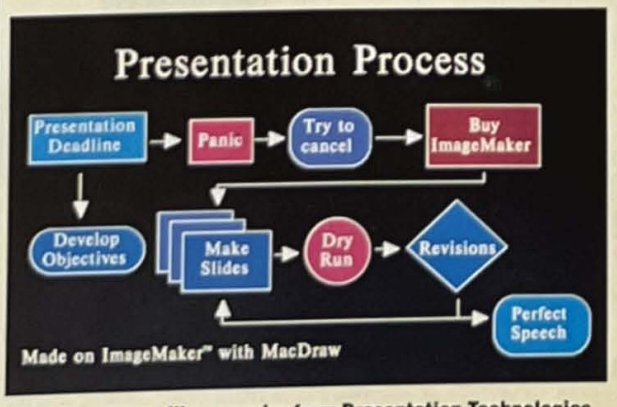
Like some other computer peripherals, film recorders have recently plummeted from the price stratosphere down to an affordable level. Desktop level, in fact.

Not long ago, anything under $100,000 was considered cheap for a device that could transform digital computer files into color slides. The better film recorders cost hundreds of thousands of dollars. Now, while you can still spend $250,000 on a high-volume, high-resolution model, you can also find desktop film recorders that cost under $2,500.

There's a good selection of models with 2,000- to 4,000-line resolution in the $5,000 to $8,000 range. American Liquid Light Inc. of Torrance, Calif., produces Still Light, the lowest-priced desktop recorder. Still Light "provides resolution that mimics the quality of a Macintosh screen," according to Nicholas Vassilakis, president and founder of the 2-year-old company. The company also offers a 2,000- to 4,000-line model for $3,995. Still Light recorders generate color slides in two to six minutes from any PICT or PICT2 file, Vassilakis said. Users also can create transparencies or instant Polaroid prints using an optional 4-by-5-inch camera back or Spectra Type instant print back.

The Mirus FilmPrinter from Mirus Corp. of Santa Clara, Calif., appeared this summer. According to Rick Tompane, founder of the company, the heart of this device is its Direct Digital Imaging technology, which is similar to the digital imaging techniques found in larger, $15,000-to-$100,000 film printers used by slide service bureaus.

Tompane compared the FilmPrinter to the LaserWriter. He said he believes it will be the digital engine that will drive the desktop presentation market with affordable, high-quality text and graphics. Selectable from the Chooser, the FilmPrinter supports the 35 LaserWriter Plus fonts, up to 16 million colors and 8,000 lines of addressable resolution.




**The ImageMaker film recorder from Presentation Technologies was one of the first inexpensive models on the market.**

Presentation Technologies of Sunnyvale, Calif., hopes that its alliance with Cricket Software's Cricket Presents... will put its film recorder, the Montage FR1, on top of this growing market. Priced at $5,995, the Montage unit is based on QuickDraw. It's the first part of a complete desktop presentation package that will eventually contain a color PostScript processor and color thermal printer, all supporting the Cricket Expression device driver.

Presentation Technologies also produces the ImageMaker, which up until the latest crop of film recorders was the least expensive on the market. Although it can produce 8,000-line resolution slides, it does not support as many colors and fonts as other machines.

ProColor from Matrix Instrument Corp. of Orangeburg, N.Y., has some special features of its own. This $6,495 device works with PICT and PICT2 files, reaching a resolution of 2,000 to 4,000 lines, according to Matrix. It handles 35mm slides and, with a special film back, Polaroid instant prints. Of particular importance to presentation makers who don't have their own Macintosh II or the latest color graphics programs, black-and-white art can be colorized with software ProColor provides.

Film-recorder buyers should be aware that advertised printing times usually apply only to relatively simple slides; those with more complex graphics can take longer — often considerably longer. Most film recorders in the $5,000 to $7,000 range provide two resolution levels — 2,000 lines and 4,000 lines. The lower level is used when speed is more important, generally for in-house use. Printing slides at the 4,000-line "boardroom" or "slide service" quality can take almost three times as long.

It would be wise to give sample slides, preferably produced from files you supply, the old eyeball test before you buy. This is your best insurance that you get a unit that can generate the quality presentation graphics you need. — *By Ken Fermoyle and Mitzi Waltz*

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*Continued from Page 38*

teach others the art of creating attractive presentations. In Brussels, Belgium, he recently conducted 10 presentation training sessions using the PowerPoint "Christopher Columbus" presentation/tutorial and found it a very useful teaching tool.

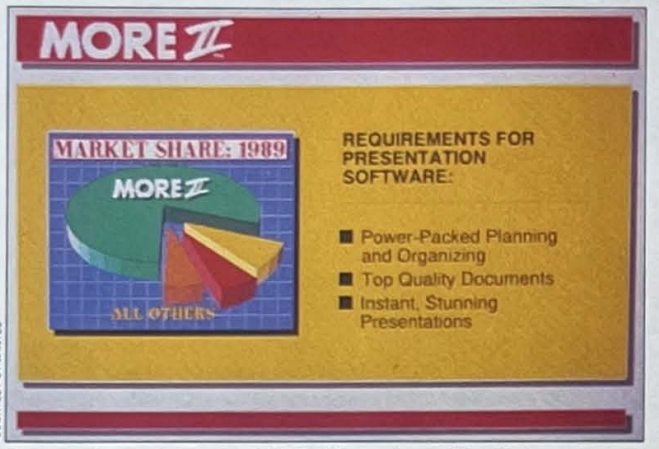
Dr. Wellington Loh Jr. spends much of his time as a pediatric hematologist at Children's Hospital in Los Angeles researching cancer causes and treatments. As a research lab fellow, he said he finds that sharing information with others in the medical profession is important. "Information and technology in cancer research change on a continuous, almost daily basis," he said. PowerPoint has reduced Loh's average turnaround time from between one and three weeks to less than 48 hours. PowerPoint allows him to adjust his slides quickly and easily, enabling him to get current data to nurses and physicians as soon as possible.

"PowerPoint's graphics capabilities allow me to more easily emphasize the important points of a presentation," Loh said.

Cricket Presents... offers all of PowerPoint's important features, plus some extras: automatic table production, advanced graphing/charting capabilities (a subset of Cricket Graph), the Acta outliner for planning, and the direct connection to Autographix.

Mike Parkinson, engineer-planner at Northrop Corp. of Newbury Park, Calif., is enthusiastic about Cricket Presents... and finds it solves a lot of his presentation problems. "We're doing fantastic things with it. In combination with Hewlett-Packard PaintJet printers, we get overhead transparencies that are almost Class A in quality," Parkinson said.

Parkinson said he likes the consistency that results from using Cricket's preset formats or templates. "You can set up your background colors, insert your logos or whatever, and then do each visual, knowing that the whole presentation will have a consistent, professional look," he said. He also said he likes having an entire presentation available from within one file as well as the ease with which you can re-sort and change the slide sequence.




COURTESY SYMANTEC

**Symantec's newest product, MORE II, produces files that can be turned directly into slides at the MAGICorp service bureau.**

Like many other Macintosh users, Parkinson often starts using a program with only a cursory glance at the manual. As a beta tester, Cricket asked him to prepare a wish list of features. The list included about 15 items. "As I went through them with the Cricket team, however, they kept pointing out that most items already were in the program. 'That's covered on Page 47,' they would say. I just needed to look at the manual a little closer! " he said.

MORE II is fast, easy to use and may be the best choice for someone accustomed to working with outliner/idea processor packages. As an entry-level desktop presentation program, it lacks certain sophisticated tools like table generation, but it contains a full-featured word processor and drawing tools.

StandOut! doesn't yet have a track record, but it contains a full set of drawing tools, integrated charting functions, and extensive text-editing capabilities: style sheets, glossaries, search and replace and a spelling checker. It includes a background grid that can be turned on or off, and is useful for placing elements on individual slides. This feature should endear it to users familiar with Ready,Set,Go!, which uses a similar grid approach.

Each of these programs has special features that might make it better suited for certain purposes than others, but VideoWorks II is in a category of its own. No other program provides a similar combination of animation and special effects.

Such features as in-betweening, which lets you specify the starting and ending positions in a sequence and then automatically fills in the intervening frames, replace much of the dull, repetitive work of animation. VideoWorks has made animation so much easier that it has opened up the medium to desktop presenters. "If a picture is worth a thousand words, animation can be worth a million," said David Lavery, a senior computer system scientist at NASA in Washington, D.C. "It's ideal for showing such things as laminar airflow over a wing — something you can't do in a slide."

VideoWorks II is not limited to animated productions, however. Lavery still uses it primarily for slide presentations. "We pull everything together with Overview, the single most useful feature, in my opinion," he said.

Overview is the portion of VideoWorks II that allows users to arrange and view their presentations, create complex sequences and link different types of files into an integrated whole. "Also, it's so simple to use that our managers pick it up quickly and turn out slide presentations in a very short time," Lavery said.

Lavery said he plans to use the program more and more for such things as proof-of-concept analysis and to show technical concepts in graphical form. "We hope to do this as part of an effort to develop a plan for a planetary rover, a telerobot destined for Mars."

You need special equipment (large monitor, computer-controlled projection system, video tape transfer system or the like) to fully exploit VideoWorks' special features. "We are moving to a full on-line setup, with no hard copy — going direct from Macs to projectors rather than using slides or overheads," said Northrop's Parkinson.

"To further this goal we are developing libraries of clip art and animation sequences to be used with VideoWorks." □

*Ken Fermoyle is a frequent contributor to MacWEEK.*

## PRODUCT INFO

**Aldus Corp.**
FreeHand: $495; Persuasion: $495 (due to ship in fourth quarter)
411 First Ave., Suite 200
Seattle, Wash. 98104
(206) 628-2368

**American Liquid Light Inc.**
Still Light: $2,495-$3,995
2301 W. 205th St., Suite 106
Torrance, Calif. 90501
(213) 618-0274

**Autographix Inc.**
100 Fifth Ave.
Waltham, Mass. 02154
(617) 890-8558; (800) 584-8558

**Cricket Software**
Cricket Presents...: $395 (temporary introductory price: $295); Cricket Draw: $295; Cricket Graph: $195
40 Valley Stream Parkway
Malvern, Pa. 19355
(215) 251-9890

**Genigraphics**
4806 W. Taft Road
Liverpool, N.Y. 13088
(315) 451-6600; (800) 752-5255

**Letraset USA**
StandOut!: $495
40 Eisenhower Drive
Paramus, N.J. 07652
(201) 845-6100; (800) 631-1603

**Living Videotext Inc., a division of Symantec Corp.**
MORE II: $395
10201 Torre Ave.
Cupertino, Calif. 95014
(408) 253-9600

**MacroMind Inc.**
VideoWorks II: $195; HyperCard Driver: $99.95; VideoWorks II Accelerator: $194
1028 W. Wolfram St.
Chicago, Ill. 60657
(312) 871-0987

**MAGICorp**
50 Executive Blvd.
Elmsford, N.Y. 10523
(800) 367-6244; (914) 592-1244

**Matrix Instruments Corp.**
ProColor: $6,495
1 Ramland Road
Orangeburg, N.Y. 10962
(914) 365-0190; (800) 852-8533

**Microsoft Corp.**
PowerPoint 2.0: $395
16011 N.E. 36th Way
Redmond, Wash. 98073
(206) 882-8080; (800) 426-9400

**Mirus Corp.**
Mirus FilmPrinter: $5,895
4301 Great America Parkway
Santa Clara, Calif. 95054
(415) 949-5544

**Presentation Technologies**
Montage FR1: $5,995; ImageMaker Plus: $4,995
743 Pastoria Ave.
Sunnyvale, Calif. 94086
(408) 749-1959; (800) 345-7050

## The fate of slide service bureaus

Our disk drives runneth over with new desktop presentation software and film recorders — products that seem to favor in-house presentation production. Is that bad news for the outside vendors who specialize in supplying quality slides and transparencies to their customers?

Yes and no, depending on which vendor you ask. One dejected owner of a small graphics service company in Los Angeles reported that he doubts his organization will survive another year "unless I figure out a way to get lots of new business — real quick!"

His problem: "My customers can afford to buy equipment that's just as good as mine, maybe better than some of my current stuff. And it's cheaper now than when I bought it. I can upgrade, but I can't afford $100,000 for a really fast, high-resolution film recorder. And that's what it takes to get an edge right now."

Good desktop presentation software coupled with the templates and guidelines available allow even amateurs to produce decent presentations, he said. "They may not be great, but they're good enough. At least that's what some of my ex-customers tell me," he added wryly.

On the other hand, Ken Coleman fairly bursts with enthusiasm when he discusses the future of his company. Coleman, vice president of imaging services for Autografix, said that the new interest in higher-quality presentations means more opportunities for his company. One reason is a special deal with Cricket Software, which has arranged for users of Cricket Presents... to get 24-hour slide service from Autographix.

"Sure, a lot of companies will go for film recorders," Coleman said, "but we think a lot of them will turn to us when they bump up against the limitations of $6,000 to $12,000 recorders. What happens when they have 100 or so slides to produce overnight? They'll find it takes five to 10 minutes for each slide, maybe more for complex slides at maximum resolution." He said that desktop film recorders take their own sweet time — 30 to 50 minutes per slide — to raster complex PixelPaint image files, while Autographix needs only 30 seconds to do the job. And, he added, Autographix can "provide boardroom-quality output every time."

The special Cricket Presents... service makes it easy and comparatively inexpensive to get overnight service, Coleman said. "Every Cricket Presents... package includes everything a user needs to prepare files that can be sent to us via modem or on disk," he said. "We can send those files directly to our film recorders immediately and with no rekeying necessary. If your order and files arrive at one of our five imaging centers by noon, you can get your slides via Federal Express by noon the next day." Autographix's imaging centers are located in New York, Boston, Los Angeles, Chicago and San Francisco, and more are planned.

A key point in the Autographix service is its "no-rekeying" feature. It's unique in the field right now, although Genigraphics expects to start a similar service for Microsoft PowerPoint users before the end of the year. Currently, PowerPoint users create slides, then deliver job order and layout forms to any of the 24 Genigraphics Service Centers. Slide files are re-created by Genigraphics personnel. Charges are from $18 for simple text and title slides to $40 for organizational charts and schematic diagrams.

Large companies like Genigraphics are nervous about competition from the new technology, but they hope that by repositioning themselves to grab the high end of the presentation business, they can keep company profits growing. A Genigraphics employee in San Francisco put it this way: "On your more day-to-day shows, I think it will be done internally. But for trying to woo outside clients, I think they'll still be dealing with us. If other people will be dealing with those same clients, they'll want to be competitive — and that means high-quality slides." — *By Ken Fermoyle and Mitzi Waltz*

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# Tutorials for the rest of us

GORDON STUDER

*As the Macintosh and the software that is developed for it continue to evolve, users are finding that despite the Mac's user-friendly reputation, they must spend some time with tutorials. Training services catering specifically to Macintosh users are continuing to grow.*

BY CHRIS ALBERTSON

In the beginning, there was that cute Mac with the smiling face, a 128-Kbyte creature that anyone could sit down at and make practical use of in just a few minutes. One did have to be told a few ground rules and procedures, like how to handle and maneuver the mouse, but the Mac seemed indeed to be the computer "for the rest of us." This is not to say that it was frustration-free. There were, for example, times when the friendly little devil tested our patience by insisting on an unreasonable number of disk swaps for a seemingly simple file load, but pesky demands were easily forgiven.

Now the Macintosh has grown up. A four-year evolution has given it new form as well as new life. Is it still "the computer for the rest of us?" Perhaps. Does that overworked term "user friendly" still apply? Yes, all things being relative. To Apple, which gave us the slogan, "the rest of us" obviously refers to those who are intimidated by complex systems requiring large stacks of manuals — remember the commercials? But now that has been changed to "the power to be your best" because, in some ways, power has replaced ease of use. The Macintosh is still friendlier than most computers, but we've come a long way from the simplicity of such early applications as MacWrite and MacPaint. In fact, we have reached the point where Macintosh and training no longer are mutually exclusive terms, a point where there is a thriving market for Macintosh training products.

The volume of documentation accompanying such applications as PageMaker from Aldus Corp. of Seattle and dBASE Mac from Ashton-Tate of Torrance, Calif., tends to intimidate veteran Macintosh owners. "I think they have an aversion to opening a manual," said Susan Barton, president and founder of Personal Training Systems of San Jose, Calif. "Part of the appeal of buying a Macintosh was its ease of use, its non-technical nature. IBM users are used to having to look up things and struggle a bit."

Barton, whose 2-year-old company is devoted exclusively to the Mac, finds that students with previous experience in the IBM world have a peculiar handicap. "They try to make it harder than it needs to be," she said.

Ronald Bunn, a New York Macintosh user who defected from the MS-DOS world a year ago, agrees. "I spent about half an hour looking through the manual to find the copy command," he said. "I knew the Mac was supposed to be a lot easier to operate, but dragging one icon onto another was just so simple that it never occurred to me."

The current crop of training packages is basically divided into two types: videotaped courses that sometimes ask only that the trainee sit back and absorb and audio tape lessons that place the student at the keyboard to follow a series of steps using accompanying software files.

The audios. While working as a consultant, Barton designed videotaped courseware, but she said she finds the medium unsatisfactory. Her company markets only packages that combine audio cassettes and software. "Studies have shown that the retention rate for video courses is about 20 percent," she said, "so it's not a very effective training method. The best way to learn how to use a computer program is to actually sit down in front of the screen and use it, with someone at your side who has thorough knowledge of the package. We don't send you a private tutor, but we try to capture the same feeling." The Personal Training Systems (PTS) courses contain one cassette and one disk per module and were designed by Barton herself. Pleasant-sounding male and female voices take the student through carefully constructed steps, their instructions gradually eliminating details that otherwise might make their instructions sound needlessly redundant. If a student needs to refer back, a handy, lesson-specific Command Summary Card is included with each course. So is an Extra Practice Card that takes the student another step away from the course. Solo flight is, after all, the object.

The Learn 88 package is a good example of how effective a PTS course can be. Illustrator from Adobe Systems Inc. of Mountain View, Calif., was never considered an easy program to master, and the latest version, Illustrator 88, is even more complex. But the four-module PTS course tries to make learning it frustration-free and painless. A serious illustrator will want to go all the way, but the four units are sold separately for $49.95 each, and one or two may be all you need.

While FlipTrack Learning Systems of Glen Ellyn, Ill., also uses the self-paced audio cassette/software method, the company's approach is slightly different. Each cassette contains a step-by-step course on one side and optional, in-depth instructions on the other, hence the name FlipTrack. At certain intervals, the student is invited to turn the cassette over for more details. That works very well, provided one has set the cassette player's counter to zero. Not remembering to do so can easily result in time wasted trying to get back to the right spot in the main course. FlipTrack also comes with a Quick Reference Guide, but it is more cumbersome than the concise fold-out that PTS provides. This may be because FlipTrack also caters to the IBM scene, where tutorials are often nothing more than another manual.

FlipTrack's Macintosh version of How To Use PageMaker consists of five audio cassettes and a data disk, with a 118-page, 8.5-by-11-inch paperback "Quick Reference Guide." At $195, the price sounds comparatively high, but FlipTrack does not split its packages into separately sold courses. Add up the cost of the entire PTS Illustrator 88 package, and you come up with $199.80, also the price of that company's four-module PageTutor PageMaker tutorial. Both companies market courses for Microsoft Word, and here FlipTrack's four-cassette package beats the total PTS price by $50.85.

The videos. On the surface, the audio-video medium might seem like the ideal computer training tool. After all, it allows the student to see the monitor and, in a sense, have eye contact with the person giving the course. From a manufacturer's point of view, video offers an excellent opportunity to cash in on celebrities. For instance, take San Francisco-based PCW Video's new release, Quick Results With HyperCard, which features HyperCard guru Danny Goodman.

As Apple's stack-oriented "erector set" software goes into its second year, new and better stacks keep coming, and the book to read is still Goodman's "The Complete HyperCard Handbook," a 720-page volume that adds considerably to Apple's much smaller "User's Guide." Obviously, even that book does not adequately unravel the mysteries of Bill Atkinson's remarkable application, so Goodman has gone before the cameras to come into our homes and offices. Harry Miller, president of

*Continued on Page 44*

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# *Educating corporate customers with HyperCard, HyperTalk*

MICHAEL ABRAMSON

BY DON CRABB

We've all read about the revolution in workstation computing caused by Apple's HyperCard. With it, corporate applications that were previously unfeasible (because they required more effort than their perceived worth) are popping up all over as more Mac users pull the HyperCard genie out of the bottle.

But one HyperCard use that so far has generated little interest is in corporate computing education. I don't mean writing HyperCard stacks to teach specific Macintosh usage or a specific subject. I'm talking about employing HyperCard and HyperTalk to teach corporate computer users to become good internal computing customers.

Users who understand more about the process, difficulties and timing needed to develop applications simply make better customers for those charged with developing such systems.

Advantages for such a course, which I call "programming familiarization" are many:

- Students can start writing scripts and creating stacks that are meaningful to them almost from the start.
- The basic syntax of HyperTalk can be learned quickly, always important in any adult education course.
- HyperTalk's control structures and repetition, as well as its functional and procedural abstraction, are simple enough to be grasped easily. (This lack of sophistication, while a liability for developers, is an advantage under these circumstances.)

The first step in creating this course is to break the structured design and programming process into five basic areas: problem definition, problem analysis, algorithm construction, program composition, coding and testing, and program maintenance.

For each phase, you can offer HyperCard/Talk examples. They should be simple enough to avoid having to explain HyperCard extensions, like external commands (XCMDs) and external functions (XFCNs). These will cloud the presentation. Stick to problems that can be solved with HyperCard stacks that do not use external resources.

It's important to teach just what the software can and cannot do. For example, HyperCard can't help your students decide what problem to solve. Nor can HyperCard help refine the problem in their initial analysis, although existing HyperTalk scripts can suggest possibilities.

When you get to algorithm construction, point out that HyperCard won't create the algorithm for them. Algorithm construction involves a combination of step-by-step program decomposition, intuitive flashes and dogged patience. Once a problem is broken into its constituent parts, finding algorithms that allow it to be put back together (this time in a form the computer can manipulate) is easy.

HyperTalk also offers many built-in features that aid algorithm construction. You can sample the numerous shareware and public-domain stacks as a ready source of successful algorithms. It's important that students understand that programs are not created in a vacuum, that they are often built on ideas that have been borrowed and adapted.

The program composition phase is also the place to discuss program testing. HyperCard lacks a true developer's environment. It does not have a separate script editor and interpreter (all script modifications become immediately active), it does not include a compiler or optimizer, it lacks a debugger, its error messages are often useless and its error handling can be frustrating (throwing you out of HyperCard and back to the Finder). Yet these handicaps help make HyperCard an ideal system for training neophytes. The paucity of development tools forces students to understand more of the techniques involved in program testing.

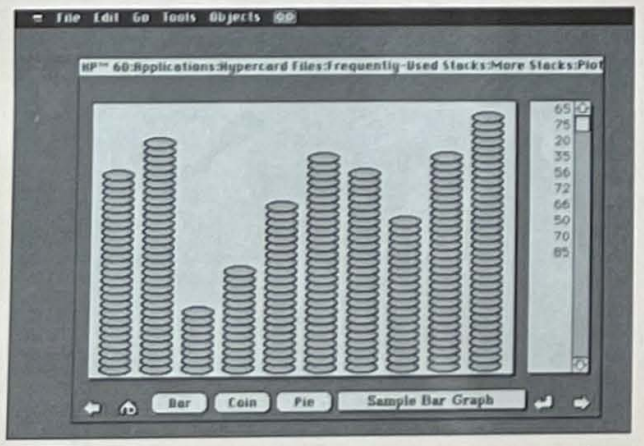
Maintaining any computer program can be a difficult concept for professional programmers to grasp, let alone novices. Once again, HyperCard/Talk can help. It's fairly easy to modify a few of the stack scripts in your sample problem to add some new global features. It's also fairly simple to introduce a bug or two in these scripts that will affect other objects in the stack.

Working from these samples, you can introduce the students to the concepts of program maintenance: adding features not originally specified during problem analysis, changing features to meet new needs, removing features no longer used and fixing bugs that prevent the program from executing as intended.

Preparing materials for this kind of course has some pitfalls, though, owing to the current state of HyperCard. First, no one has cataloged or critically evaluated the zillions of public-domain and shareware stacks or the somewhat fewer commercial stacks for instructional usefulness. You may need to create most of your own examples, as I've had to do.

Another problem rears its head when students with a little programming experience, say in Basic or Pascal, become confused easily by object-oriented programming.

And third, HyperCard's apparent ease of use may lead students to underestimate the work involved in the program development cycle. □




**This plotting application was created in HyperCard. Its ease of use makes it well-suited for teaching the basics of program design and coding.**

# WINDOW ON/**TRAINING**

*Continued from Page 42*

PCW Video, a new division of PCW Communications, the publisher of such magazines as PC World and Macworld, admitted that "having [Goodman] was a key in the decision-making process," but added that the continuing popularity of HyperCard makes it a natural subject for a training package.

The two-hour, $49.95 tape shows Goodman seated before a Macintosh SE, across the table from an unidentified man who introduces him, injects occasional comments and sums up each of 10 segments. "It's a tape for someone who is interested in using HyperCard for more than the Rolodex things that come with it, but isn't ready to jump in and buy [Goodman's] 'Developer's Guide' or a

*Continued on Page 46*

## Training tools vs. training classes

While software vendors seek to make their products as accessible to the end user as possible, there is an increasing demand for new features, even ones that most users will never use.

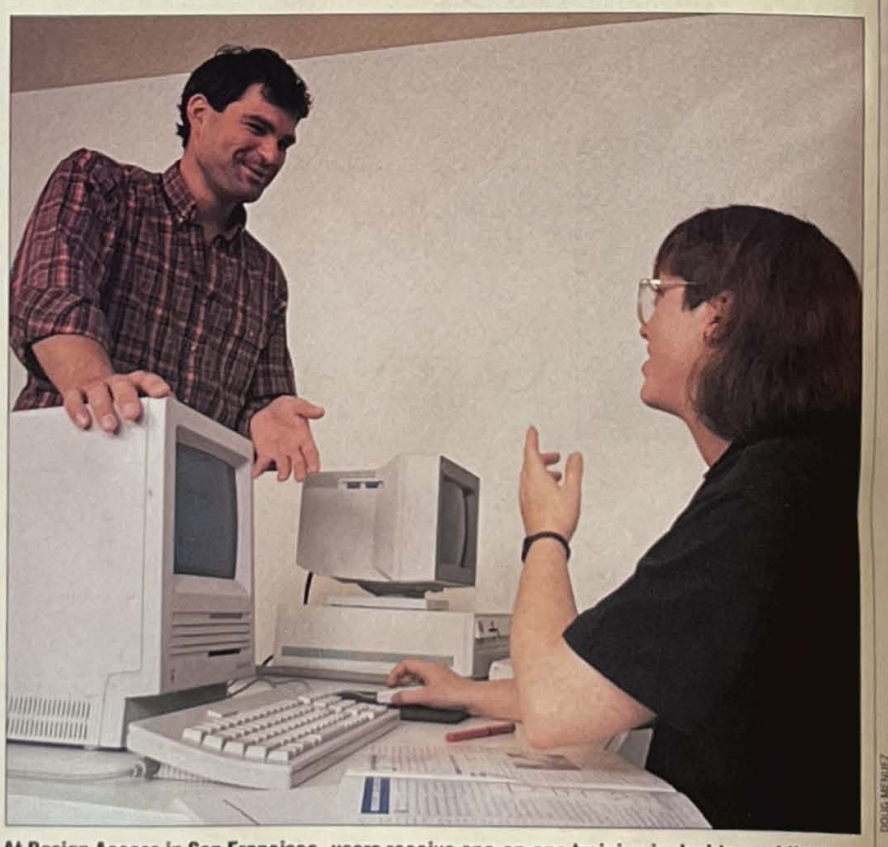
A can-you-top-this atmosphere envelops the highly competitive software industry, and as the battle rages on, the concept of Macintosh user friendliness grows dimmer. The Mac is still the most hospitable desktop computer, but the more we want it to do, the more we must be prepared to face the kinds of frustrations that users of other machines are all too familiar with.

Third-party training tools benefit the software vendor as well as the consumer, and it is therefore in the vendor's interest to cooperate with designers of teaching packages that focus on their product. Bill Atkinson's keen interest in seeing raw footage of Ken Gimbel's HyperCard video was a smart business move, although it should be pointed out that Atkinson's general attitude toward the user is uncommonly altruistic.

Many companies, including Aldus, Adobe Systems and Apple itself, conduct or sponsor training courses at well-chosen sites around the country. Having these corporate names behind them lends credibility to such programs but does not guarantee that they will be more effective than the $50 package purchased in the local computer store. "I spent a few hundred dollars on a course in desktop publishing," said Ron Bunn, whose Ron Bunn Associates uses Macintoshes to offer New York printers an alternative to costly typesetting. "But I learned more from using a taped course. It taught me when I wanted to be taught, it kept up with my ability to grasp new knowledge, and it only cost me $150 plus shipping and handling."

Some seminars are no more educational than a product demonstration at a users group meeting. A fancy brochure can be very misleading, so one should not enroll in a course without doing some basic checking. How big is the class? A large class means little or no interaction with the tutor; it can also mean that there will not be enough computers to go around and having to share a computer disrupts the learning process. Also check the tutor's credentials. Universities and colleges, where many computer courses are taught, often do little checking themselves, relying more on a teacher's experience with computers than on his or her ability to transfer that experience to students.

The bottom line is, what did you learn? Most people will find organized seminars too costly, and if the budget is really slim, the solution might well be to share a training package with others who are equally eager to learn. While software manufacturers may sue at the thought of their disk going into a second machine, courseware vendors tend to have an open-minded attitude. "We encourage it," said Susan Barton. "Some people think we're crazy, but we actually find that our best advertising is having someone try it. We purposely make our product reusable so that a person can pass the course on to someone else after they're done." And what about piracy? Not a problem, Barton said, citing the reasonable price as a factor. — *By Chris Albertson*


DOUG MENUEZ

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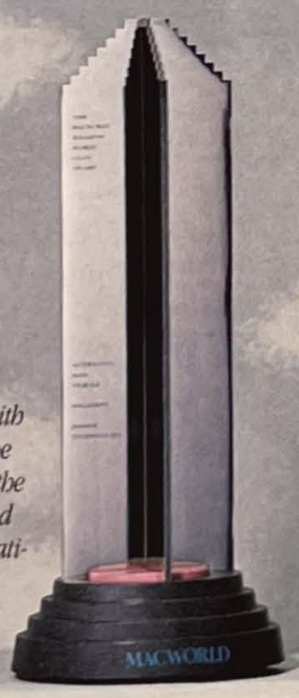
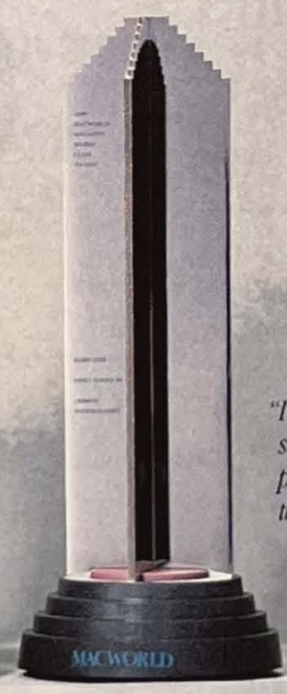


*1988 Macworld Magazine World Class Award*
*Hard Disk Drives*
*DirectDrive 80*

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*Continued from Page 44*

book about scripting," said Miller. "It's for people who are right in between there, who are sufficiently interested to delve a little deeper, but not quite ready to call themselves programmers."

The presentation is reminiscent of the software demonstrations that Kevin Strehlo used to preside over on "The Computer Show," a nationally syndicated computer-related television program. The tape offers many valuable hints and tricks, but finding them can pose a problem, even if one follows the suggestion to jot down the VCR's counter number at the beginning of each segment.

A similar format is followed on "HyperCard: A Video Introduction," from Voice & Video Inc. of San Diego. But this presentation is less chatty, 20 minutes shorter and designed to have you follow it while seated at your computer. The on-camera tutor, Chuck Allen, does a fine job of guiding the uninitiated through a basic, laid-back course in the use of the program. The viewer is shown how to modify existing stacks like the Rolodex and Address Book that come with HyperCard and how to create new stacks using the program's stack ideas.

**Susan Barton, president of Personal Training Systems, demonstrates her company's cassette tape and disk system.**

**Voice & Video's instructional videotapes feature instructor Chuck Allen, who walks the user through new applications such as HyperCard and PageMaker.**

Voice & Video is a video post-production facility whose president, Kenneth Gimbel, an "incurable Macintosh enthusiast," became so frustrated with HyperCard's limited manual that he decided to create a video tutorial. "My brother put an incredible amount of hours into research," said David Gimbel, a corporate officer and partner. "And when he passed around a sample for input, word of it got to Bill Atkinson, who asked to see it."

Atkinson made several suggestions, all of which have been incorporated into the tape and undoubtedly helped give it the authoritative feel that attracted the interest of Aldus. Two PageMaker videotapes, "Getting Started" and "Advanced Techniques," have since been produced by Voice & Video, and when Microsoft Word 4.0 is shipped, a new Voice & Video tape will be ready.

"Timing is important," said Kenneth Gimbel. "The ideal time to release a training tape is when the software itself starts shipping." That, of course, requires the cooperation and confidence of the software manufacturer, who must furnish an advance copy of the application. Barton has won that trust from Aldus, which included Personal Training Systems in its recent announcement of Persuasion, a business presentation package.

"We haven't reached that stage yet," said Jeffrey Nicoll, president of TDG Enterprises Inc. of Sandy, Utah, another maker of training tapes. "We would very much like to have vendors like Microsoft and Aldus work with us ahead of their release schedule, but we have yet to establish credibility."

Nicoll's founding of TDG was almost an act of self-preservation. "There were three or four of us who were pretty good friends, and we all had Macintoshes," Nicoll said. "Eventually, we came to be known in our area as people whom others could ask computer questions, and one Christmas morning one of us got about 30 such calls. That did it. We decided to throw together a little seminar for every Macintosh owner we knew. At the end of it, we thought it would have been great if we had videotaped it, and that's how the idea to do this thing commercially grew."

TDG's initial release, "Your First Few Steps," is a relaxed session for the new Macintosh owner. It covers everything from how to cable up the various Macintosh models to handling disks to using the mouse, Finder, System Tools and such basic applications as a word processor (MacWrite) and graphics programs (MacPaint and MacDraw).

A unique feature of TDG tapes is a small color-coded rectangle in which the minutes are counted off. It appears in the lower left-hand corner of the screen and acts as a handy locater. For example, to find the segment that explores the Control Panel, you look at the printed table of contents and note that it appears in the red segment at 24 minutes into the tape. All video training packages should be designed with such consideration. TDG currently has in production tapes devoted to Microsoft Word and Excel as well as a follow-up to "Your First Few Steps." The latter sells for $39.95, and "Your Next Few Steps" will be $10 more.

The debate over which medium is better, audio or video cassettes, will never really be settled. Both are effective educational tools, and neither has the last word. Barton said she looks forward to exploring CD-ROM as a medium, and the video makers hope that the laserdisc technology, with its random access and reliable special effects features, will eventually become an economically feasible solution. Many educators said that there is no greater teaching tool than the computer itself, so why do we need tapes of any sort? □

*Chris Albertson wrote "If It's Art, It's Art," in MacWEEK's GA Supplement last May. He lives in New York City.*

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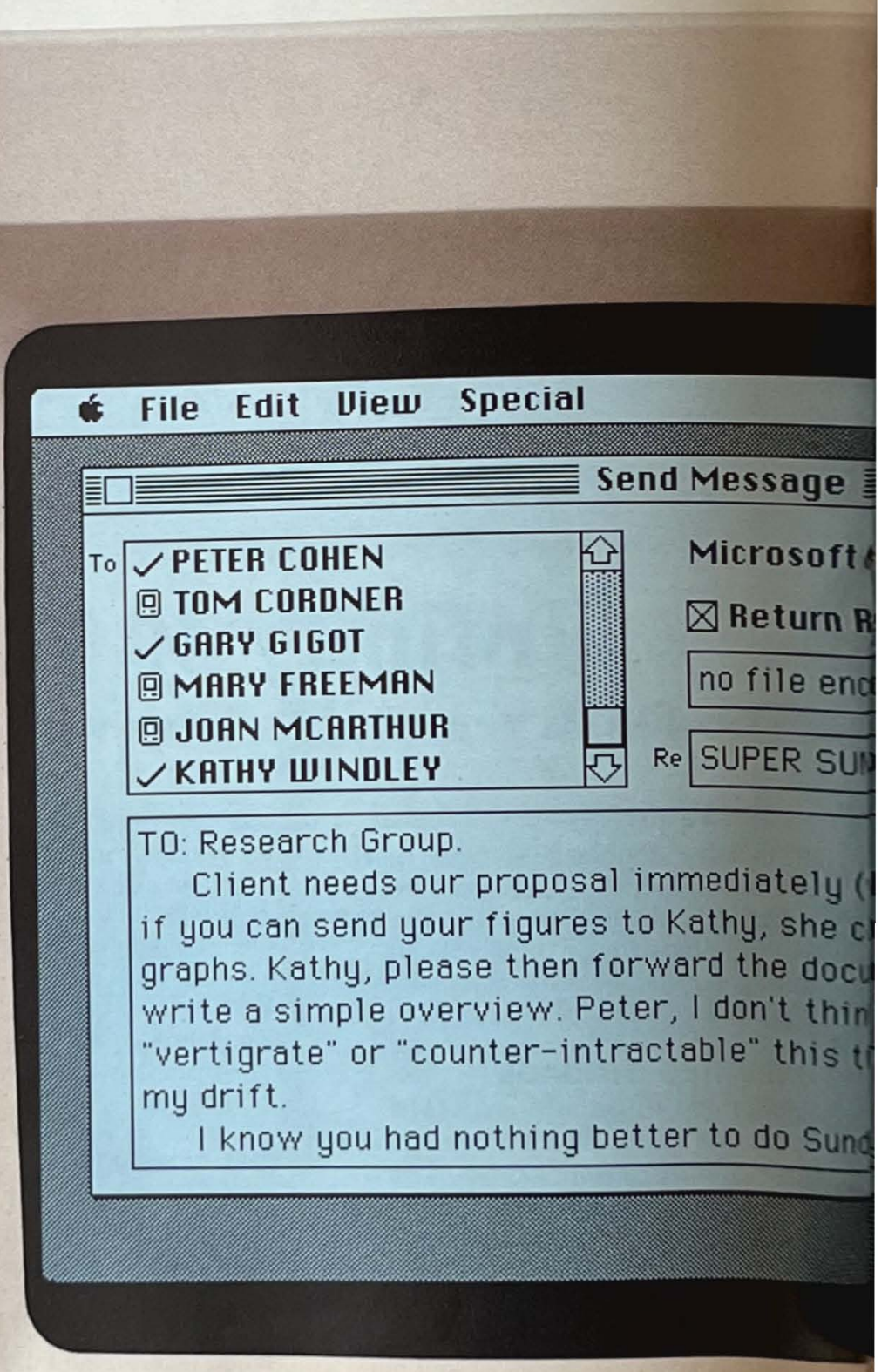


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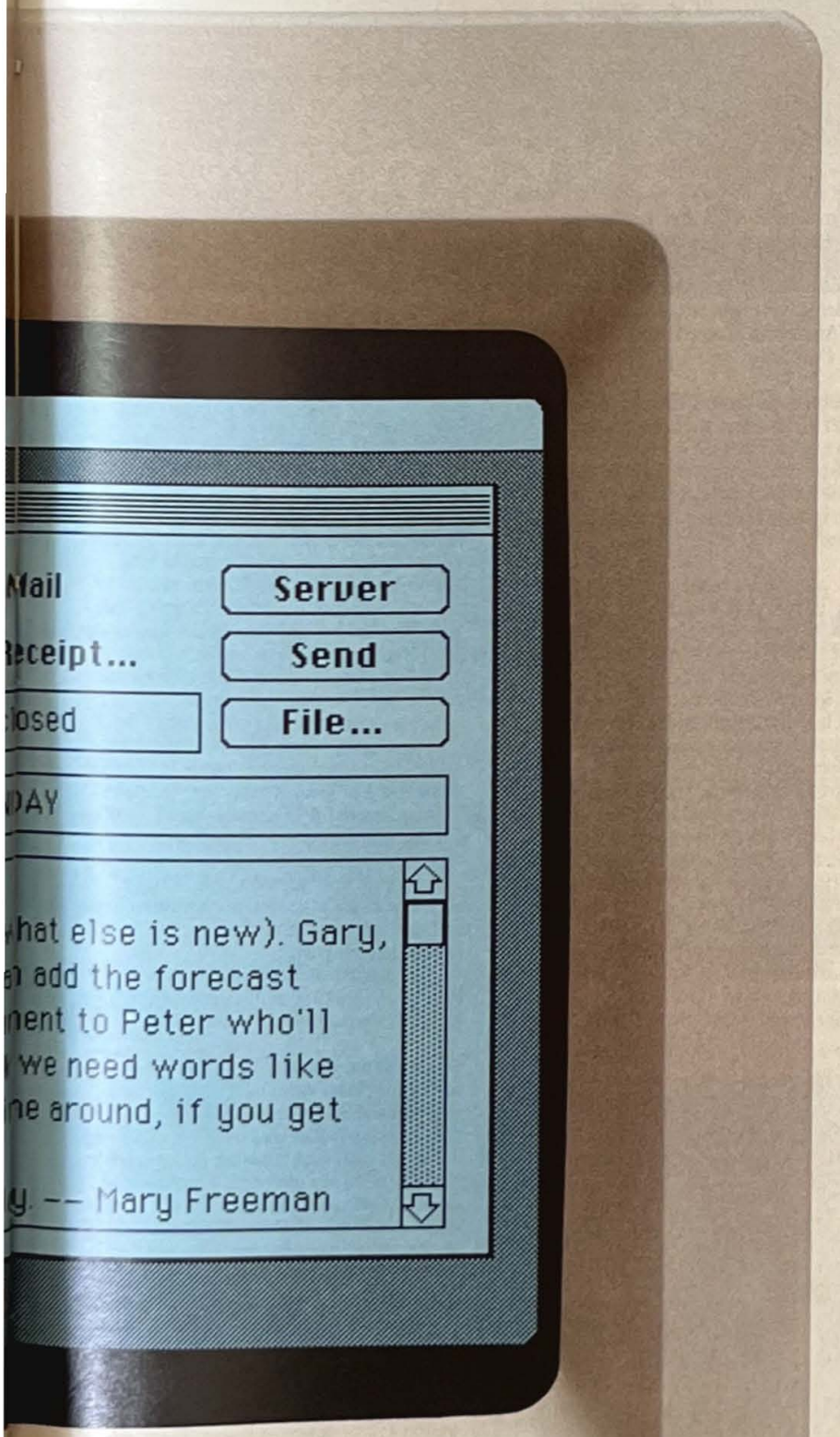


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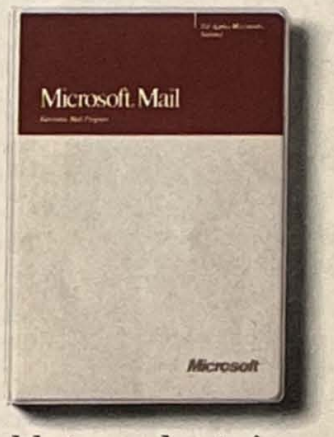


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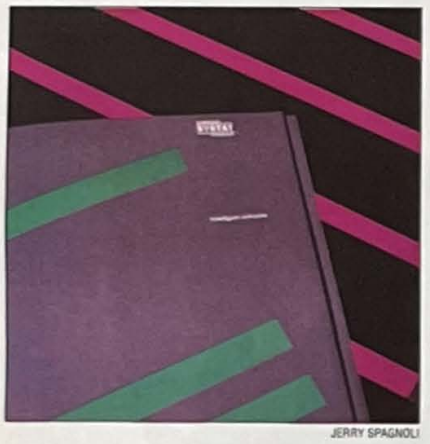
# Holdover from a bygone age

*SYSTAT reflects early approach to statistics computing*



JERRY SPAGNOLI

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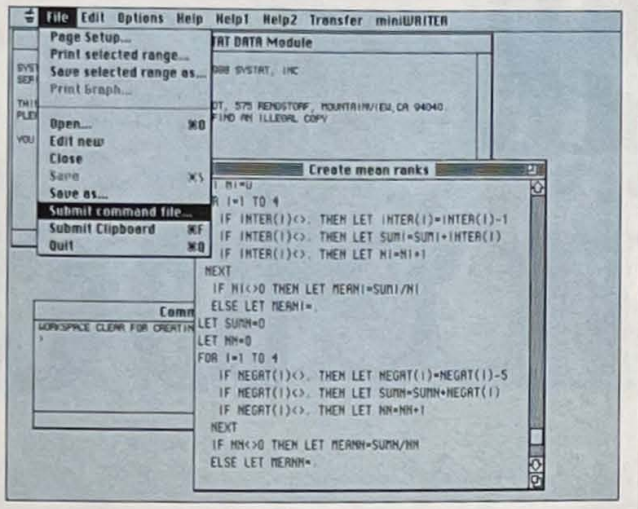
**–** The user interface; the user interface; the user interface.

BY DAVID BRANDT

The first computer this reviewer ever used had 128 Kbytes of RAM, but it wasn't a Macintosh. It was an IBM mainframe. This dinosaur filled the basement of a large research center and its "user interface" was the punch card.

Despite their prehistoric interfaces, mainframe statistics programs were quite advanced. The earliest programs, written by statisticians for other statisticians and distributed informally, implemented the most powerful statistical methods of the day. In the mid-1970s, these programs evolved into large-scale integrated packages, developed and maintained by full-time staffs.




**A short program can be written in miniWRITER and uploaded to the SYSTAT data module.**

When the card punch was replaced by the line-oriented text editor, the fixed format interfaces of the earliest programs were replaced by mnemonic control languages. When interactive mini and microcomputers became available, the descendents of these statistics packages were ported to the new machines.

Of these packages, only SYSTAT is available on the Macintosh. It reflects both the strengths and weaknesses of the early approach to statistical computing. SYSTAT is by far the most comprehensive statistics package available for the Macintosh, yet its user interface may be unpalatable to those who have never seen a computer more primitive than a Mac Plus.

**General architecture.** The SYSTAT package consists of 12 modules, each of which carries out a particular type of analysis. Four optional modules are available. The 12 modules total about 3 Mbytes and the optional modules are about 170 Kbytes each.

The DATA module is the starting point in SYSTAT. It is used to create a data file for use by any other module. Data files, however, use the generic icon, and double clicking on them does not launch the program since it has no way of knowing which module you want.

SYSTAT runs under MultiFinder, but two modules cannot be used simultaneously.

Version 3.2 represents an intermediate point in the developers' efforts to convert the program to the Macintosh interface. Files can be opened, saved and closed using the File menu; the Macintosh Clipboard is now supported; every module has an extensive help facility; and the Transfer menu lets you move from one module to another. All the real work of data analysis, however, is carried out from the command line. The names of variables may be no longer than eight characters and alphanumeric variables are designated by a "$" suffix. Version 4.0 of SYSTAT, scheduled for release early next year, will share the "no-frills" Macintosh interface of MYSTAT (see story, Page 53).

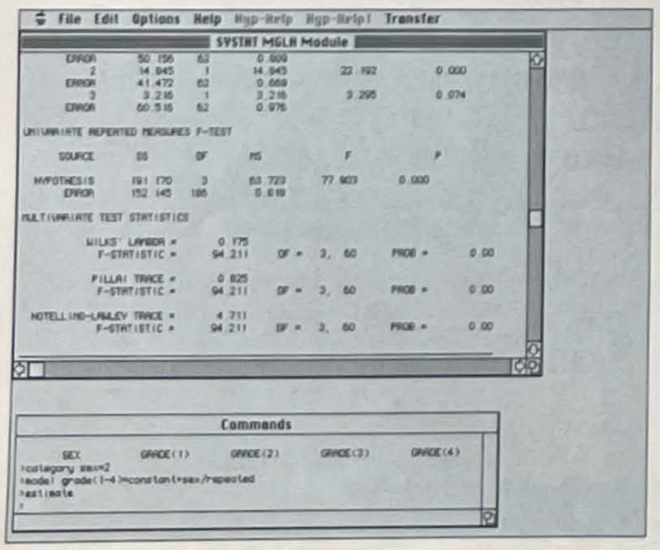
**The user interface.** Although hardly Mac-like, SYSTAT's interface is consistent and powerful. Each module uses a two-window interface; you enter commands in one window and the results appear in the other, accumulating as you work. Results are saved by copying and pasting.

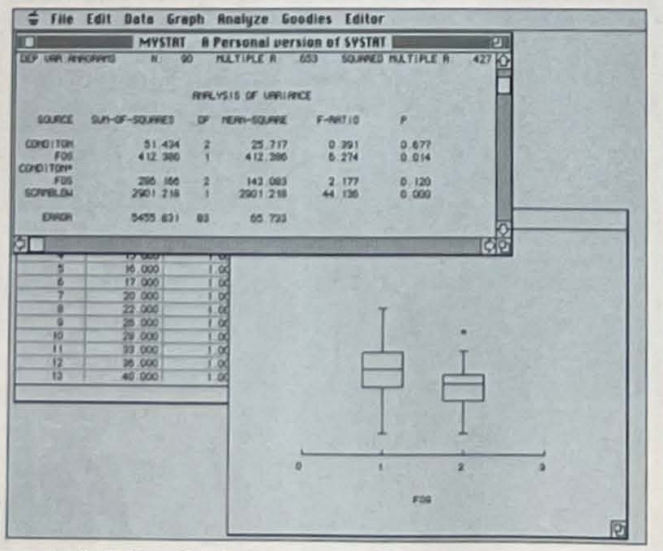
Analyses are requested by specifying the analysis followed by a list of variables (for example, TABULATE EDUC*INCOME). Fortunately, many analyses can be requested with only one line of code. Most of the multivariate statistics functions, however, require a few extra lines.

Once learned, the command language isn't as impenetrable as it may first appear. However, we quickly became tired of typing in variable names — you don't mind the eight-character limit when you have to type them.

We also found it tedious to move among the several modules to accomplish logically related tasks. For example, analyses of variance are done in the MGLH module, group means are computed in the STATS module, plots are done in the GRAPH module and transformations are done in the DATA module. When you transfer from one module to

*See SYSTAT, Page 52*




**(Left) The keyword "repeated" on the MODEL statement automatically generates both the univariate and multivariate solutions to this repeated measures problem. (Right) A sample screen from MYSTAT showing analysis of variance.**

# THE WEEK IN REVIEWS

## *Bug fix is right On Cue*

BY DENNIS KLATZKIN

**Launch ticket:** When we reviewed On Cue (MacWEEK, May 3), our praises were virtually unqualified. We found only one shortcoming, admittedly a minor one, in this excellent file-launching and MultiFinder-management utility: It was unable to launch additional documents for an open application.

This limitation was a carry-over from a similar shortcoming in Apple's system software prior to Release 6.0. Under MultiFinder, you could not open a document by double clicking its icon on the desktop if the file's "parent" application was already in use.

On Cue's developers have addressed the problem and gone one step further. The latest version of On Cue, Version 1.3, allows you to launch additional documents for an application that's already in use, whether or not MultiFinder is active and regardless of which system software you're using.

On Cue costs $59.95 and is now sold by ICOM Simulations Inc., 648 S. Wheeling Road, Wheeling, Ill. 60090; (312) 520-4440.

**On the bookshelf.** I recently made an important new addition to my collection of Mac books. Addison-Wesley's "Technical Introduction to the Macintosh Family," carrying the Apple imprimatur, now adorns the shelf alongside John Sculley's "Odyssey" and Homer's "Iliad." I suspect Addison-Wesley's book will get far more use than the others.

If you're interested in getting more depth about the inner workings of your Mac than Apple's manuals offer and "Inside Macintosh" is beyond your level of expertise, "Technical Introduction to the Macintosh Family" is the answer. Whether you're a budding developer or simply want to go beyond the litany of "how to point and click" tutorials, this 289-page overview of the Mac system's hardware and software will prove itself the next best thing to having a live-in guru.

"Technical Introduction to the Macintosh Family" costs $19.95 at dealers with a well-stocked computer book section.

**Son of name games.** The ink is barely dry on our first installment of "The Name Game" (MacWEEK, Aug. 16), but a few late entries are too important to pass up. First, there's the news that we'll soon have our first post-professional version of a program. What'sBest! from General Optimization of Chicago will be offered in Personal, Professional and Industrial editions. But where does it go from here? Tactical? Strategic?

There's a new trend toward modest names, too. Dac Software of Dallas is bringing the first of its popular MS-DOS accounting programs to the Macintosh as DacEasy Light. It's probably just as refreshing but less filling.

Claris has deflated and Romanized FileMaker 4; it's FileMaker II now. If Claris starts a new round of "series" names, it should be aware of the pitfalls. Ashton-Tate had to stray from its series names with Full Impact; it could hardly have been called FullSheet! And I'll bet that no one will ever bring out a program called MasterWord. But what's in a name? I'd even use a program called Modern Word if it got the job done. □

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*Continued from Page 50*

another, the program closes your file and you must reopen it.

**Statistics routines.** The breadth and depth of SYSTAT's inferential statistics features give SYSTAT its reason for being. In particular, the scope of multivariate statistics functions provided is unchallenged by any other Macintosh program.

The centerpiece of the package is undoubtedly the MGLH module. A powerful and versatile implementation of the multivariate general linear model, it computes univariate and multivariate multiple linear regression, analysis of variance and covariance, multiple group discriminant analysis, canonical correlation and principal components. Also, linear contrasts on groups (for example, specific comparisons) and on dependent variables (for example, profile analysis) can be specified.

For the analysis of variance, SYSTAT is superior to all other Macintosh statistics packages on the Mac and compares favorably to the most powerful stand-alone implementations on mainframes.

**Data management.** The data-management facilities in SYSTAT are also exceptional. The DATA module includes a version of the Basic programming language. Files can be merged or split; variables can be lagged; and multipass transformations can be computed. Basic programs can be written with any text editor and imported into SYSTAT.

**Graphics.** SYGRAPH, SYSTAT Inc.'s powerful stand-alone graphics program, comes bundled with SYSTAT 3.2. It shares SYSTAT's interface and comprehensiveness. It has none of the dynamic, interactive graphics or color capabilities of other Mac graphing applications, yet it offers a much wider variety of statistical graphing options. The SYGRAPH manual is more than 900 pages, most of which illustrate the various graphing permutations possible.

SYGRAPH's command-line interface sacrifices ease of use for control. However, many exotic types of plots, unavailable in other Mac applications, are supported.

**Error handling.** To put it gently, error handling in SYSTAT is "pre-Macintosh." The comprehensive error trapping and friendly — sometimes constructive — alerts that Mac users take for granted are nowhere to be found. Instead, a generic error message such as "CAN'T UNDERSTAND THIS: ..." or "UNABLE TO DECIPHER ..." appears whenever you make a mistake.

While working with the MGLH module, we uncovered a more troubling problem. When analyzing the two-group repeated measures problem, we coded the group membership variable by arbitrarily choosing the numbers 0 and 1. The program reported an incorrect solution without supplying any diagnostic messages whatever. Investigating the problem in the on-line help package yielded the correct solution of coding group membership using the numbers 1 and 2.

According to SYSTAT tech support, which is fully aware of the problem, the code of 0 has a special meaning in connection with so-called nested designs (ours was a "crossed" design), and its use was inappropriate. However, the failure of the program to warn of this unusual limitation is inexcusable by Macintosh standards.

**Documentation, technical support.** SYSTAT's documentation is organized by module; each chapter begins with a listing of the available commands and a brief description of the analytic technique. Several sample analyses follow, proceeding from the simple to the complex. The chapters on the more complex multivariate methods assume that the reader has some background in the statistical method and matrix algebra. Given those assumptions, the documentation is very well written.

We found that the manual makes a better extended tutorial than a reference document. Examples are clear and appropriate to the statistical method, but we found it difficult to locate specific examples.

The manual is written in the first-person point of view by SYSTAT's developer, Leland Wilkinson. It contains numerous asides to the reader and prescriptive comments on how things "ought" to be done. We appreciated his informal style and agreed with his prescriptions most of the time.

A complex program like SYSTAT is unusually difficult to support. In several tech support calls, we found the staff quite knowledgeable about both the intricacies of the program and the multivariate techniques that it implements.

**Conclusions.** SYSTAT is difficult to characterize simply. In some respects, it is much better than anything else available for the Macintosh; in other respects, it is much worse. We found it to be an excellent complement to Data Desk II by Odesta of Northbrook, Ill., (see MacWEEK, Aug. 16) since its multivariate methods and data-management facilities begin where Data Desk II leaves off. Yet much of the program's power is inaccessible to those who can't tolerate the antiquated interface, read the matrix algebra in the documentation or comprehend the multivariate output.

To the person who needs the analytical techniques that SYSTAT uniquely provides, the user friendliness of other programs cannot compensate for their lack of advanced statistics. Yet SYSTAT doesn't have to be as "usersurly" as it is. Though we appreciate its power, a rudimentary point-and-click interface and adequate error handling would make the program more palatable. □

*David Brandt is a statistician by profession and a frequent reviewer of Macintosh software.*

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# SYSTAT previews future user interface free of charge

If SYSTAT's command line interface and formidable statistical methods are too much for you to handle, you may find MYSTAT more appealing.

MYSTAT surely represents the best value in statistical software; it is available from SYSTAT Inc. free for the asking. It is a general-purpose introductory-level statistics program that nicely fills the low-end statistics market recently vacated by Data Desk. Its statistical and graphical algorithms are borrowed from SYSTAT, but its user interface is new.

MYSTAT's user interface is meant to be a preview of the user interface of SYSTAT Version 4.0. The program is now integrated; the separate modules are gone. Analyses are requested using a simple point-and-click interface and each MYSTAT data file has its own icon.

In MYSTAT, analyses are requested by selecting a function from a pull-down menu and specifying the variables to be analyzed in the subsequent modal dialog box. Graphical and analytical results are displayed in separate windows.

The program's analytical capabilities are meager in comparison to SYSTAT's, but they are quite adequate for an introductory-level application. The program includes basic summary statistics, paired and two-group t-tests, frequency counts and cross-tabulations, non-parametric statistics, correlations, multiple linear regression and Anova. Some basic plotting facilities are included: histograms, box plots, scatter plots, influence plots, line plots, and stem-and-leaf plots.

MYSTAT's analysis of variance and cross-tabulation facilities are probably better than those of any other program except SYSTAT itself. Not surprisingly, MYSTAT includes a univariate version of the general linear model module from SYSTAT; it handles balanced or unbalanced crossed designs, with or without covariates. The cross-tabulation package computes an unusually large number of measures of association and agreement for two-way tables; it can compute a three-way table, but it cannot test for partial association.

*MYSTAT surely represents the best value in statistical software.*

The 34-page booklet accompanying the disk is clear and concise but doesn't provide any examples or background material on analytical techniques.

MYSTAT is hardly a substitute for the more powerful statistics packages available, and the brief manual does not attempt to teach data analysis. But, given its price point, it is ideal for those with simple statistical needs. — *By David Brandt*

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# Keeping it all in balance

## *Managing Your Money made easier*

BY DAVID STERNLIGHT

MECA Ventures Inc.'s Managing Your Money (MYM) is the Mercedes of personal finance programs. It is powerful, comprehensive, fast, well-designed and well-integrated. Incorporating years of expert financial wisdom, it handles reminders and daily schedules, writes and optionally prints checks, as well as manages as many checking accounts, charge cards, savings accounts and money market funds as you have disk space for. It charts income and expenses, compares actual spending against budgets and provides a powerful system of double-entry accounting if desired.

**How does it manage?** Transactions instantly update account balances, budgets, cash flow, Schedule A of your taxes and your net worth as soon as they are entered. The program estimates federal taxes, including Form 1040; schedules A, B, C, D, E, F, SE, 2106; and the Alternative Minimum Tax. Planning capabilities include mortgage and loan payments, bond yields, life expectancy, life insurance, college and retirement planning, mortgage refinancing and inflation.

Investment capabilities include taxable and non-taxable portfolios and recording and analysis of stocks, bonds, options and mutual funds — even your portfolio of rare wines. Cash management accounts are treated properly for checking and investment portfolio purposes.

Net worth is calculated from subsidiary accounts and can cover as much detail as desired, including household inventory. Extensive on-line help is provided, as are several sets of sample data and accounts. No other personal finance program for the Mac has MYM's breadth of features.

**Entering data.** MYM offers convenient transaction-entry windows for writing checks, spending (including credit card charges) and receiving money, and a "universal transactions" window for transferring funds from one account to another.

A convenient scrolling list of all accounts is presented for each transaction, with point-and-click selection. Transactions may be split among as many accounts as necessary. A very useful "remarks" field is included for each element of a transaction. Additional data-entry screens are provided for pricing, buying and selling stocks; reminders; net worth; tax estimation; and insurance and retirement planning.

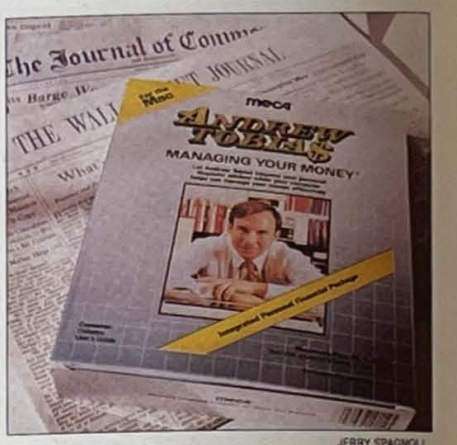
Standard Mac menus and a set of large on-screen icons are provided for ease of use. Transaction retrieval, editing and correction are fast and painless. A novel feature permits clicking on such totals as account balances, and the detailed transactions making up the balances are immediately shown on the screen. Clicking on any transaction produces the original entry forms.

On-screen retrieval options include category or account, amount range and date range. Printed reports include Journal, Check Register, Aged Payables/Receivables, Trial Balance and Disbursements/Receipts. These reports are available in summary or detailed form, sorted as sets, account categories, dates or tax categories.

**Performance and support.** MYM is very fast and the user interface is intuitive. Most users will refer to the manual for financial insights, program designer Andrew Tobias' unique brand of humor or occasional reference (the index is a good one). On-line help is available at all times, and we observed no bugs.

MECA provides effective telephone support and Tobias is often on CompuServe's MACPRO forum to answer questions, provide assistance and take suggestions. A useful newsletter containing program, tax, financial and investment tips is available as part of an extra-cost "Plus plan" ($49.95 per year) that includes an automatic annual program upgrade.

*Continued on next page*




JERRY SPAGNOLI

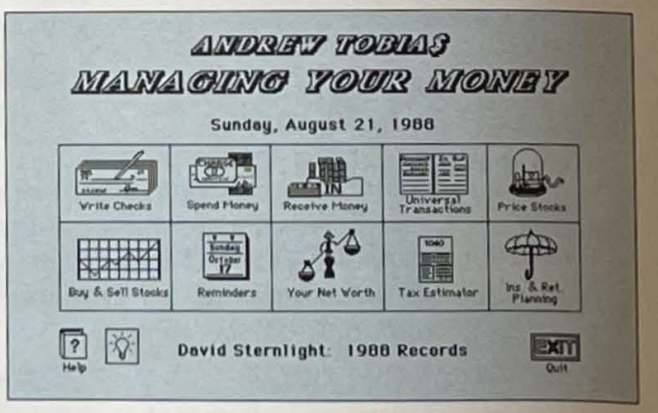
### Managing Your Money 1.0

**MECA Ventures Inc.**
355 Riverside Ave.
Westport, Conn. 06880
(203) 226-2400

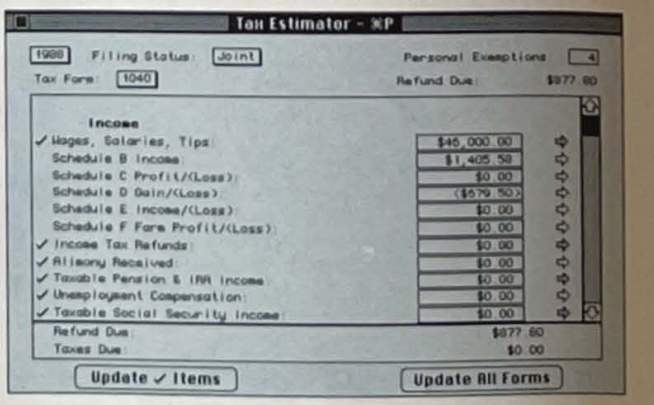
List price: $219.98

+ Easy to learn and use; comprehensive, integrated treatment of budgets, checking accounts, credit cards, portfolios, taxes, assets, liabilities and net worth; useful planning features; powerful data retrieval via point and click; delightful manual covers personal finance as well as program operation.

− Transaction file inconveniently ordered; some important reports printer-only; recurring mortgage interest and principal must be entered by hand.




**Managing Your Money's opening screen presents a graphic menu of all the program's modules.**




**The Tax Estimator presents a summary Form 1040 that can draw upon records entered in other modules.**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*Continued from previous page*

Tobias is very responsive to user suggestions. Version 2, the first upgrade, is already in testing. It will likely include data export to other Mac applications, font choices in reports, the ability to print reports to the screen, more powerful transaction entry, automatic loan handling, an IRA decision screen and many other minor improvements. MECA's record of annual upgrade releases is a good one.

**Conclusions.** Managing Your Money has our strong recommendation for users who can benefit from many or all of its comprehensive capabilities. Users who need only a checkbook-balancing program may wish to investigate less costly alternatives. MYM contains many useful and pleasant features, is robust and trouble-free, intuitive to learn and use, and equitably priced. It is likely to make your financial life much easier and can lead to interesting opportunities for financial gains. □

*David Sternlight is a Los Angeles-based economist who makes heavy use of the Macintosh in his consulting practice.*

## Do you need financial management software?

Personal financial planning and record-keeping can range from simple checkbook management to an array of complex and interrelated elements. Within the broadest framework of assets, liabilities and net worth, one could have investments in real estate; portfolios of stocks, bonds and mutual funds; personal property inventories; savings and IRA accounts; bank and credit card accounts; and cash-management, brokerage and expense accounts.

One can have loans and mortgages, tax liabilities, transfers from one account to another, recurring payments and receipts, and reminders connected with all of these.

Associated with these items are receipts and expenditures and budgeting and planning. Each of these divisions may itself be complex. Planning can include tax, cash flow, life insurance, retirement, college, mortgage refinancing and inflation issues.

Further, many financial flows are interrelated — mortgage payments affect one's taxes, tax liabilities affect one's withholding and budgeting. MYM handles all these issues, needs only one entry of a transaction, and updates all of the transaction's consequences for budgeting, cash flow, taxes and net worth without the need to purchase additional programs or "modules."

Frequently, examining alternatives can lead to useful financial strategies and significant savings. Flexible "what-if" planning tools can significantly assist this process. A good, comprehensive, well-integrated personal financial-management program, perhaps used in conjunction with an accountant, can repay its cost many times. Managing Your Money is the most complete and comprehensive such program currently available. — *By David Sternlight*

# The man behind Managing Your Money

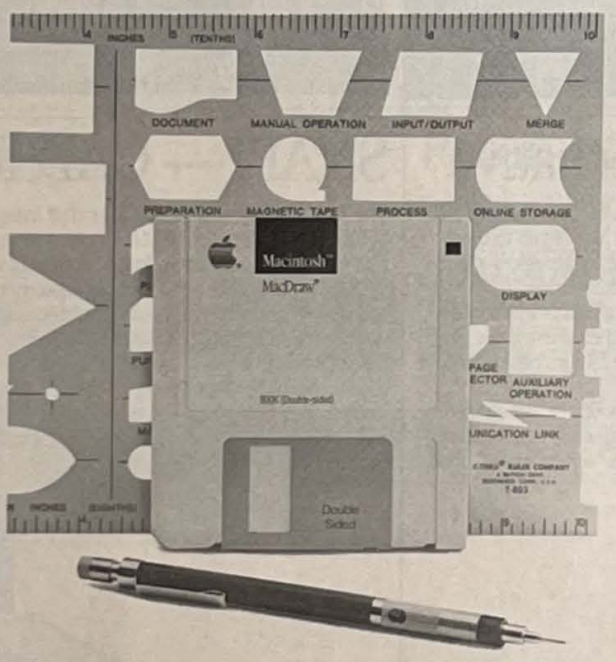
Managing Your Money's power, comprehensiveness, flexibility and ease of use can be attributed directly to the thoughtfulness and extensive financial expertise of its designer, Andrew Tobias, a graduate of Harvard College and Harvard Business School. Although the PC version of MYM has been a runaway best-seller for a number of years, the Mac version is not a port. It was written from scratch by a new team, Teleware, and includes many innovations that take advantage of the Mac user interface.

A widely known financial expert and author, Tobias is a contributing editor and columnist for several magazines and has written a number of books.

The MYM manual extends his tradition of presenting financial complexities simply, clearly and with great wit. A 200-page quality paperback, liberally sprinkled with examples and chatty questions and answers, it enjoyably takes the user through the intricacies of personal finance and of the program.

Tobias' simple explanation of double-entry bookkeeping in four short and deathless paragraphs in the chapter "Things You Shouldn't Know" is almost worth the price of admission; you will understand double-entry bookkeeping once and for all after reading it. Though the financial responsibility for applying MYM is the user's, owning MYM is almost like having Tobias as your adviser and guide. — *By David Sternlight*


## If you just need a drawing tool, use one of these

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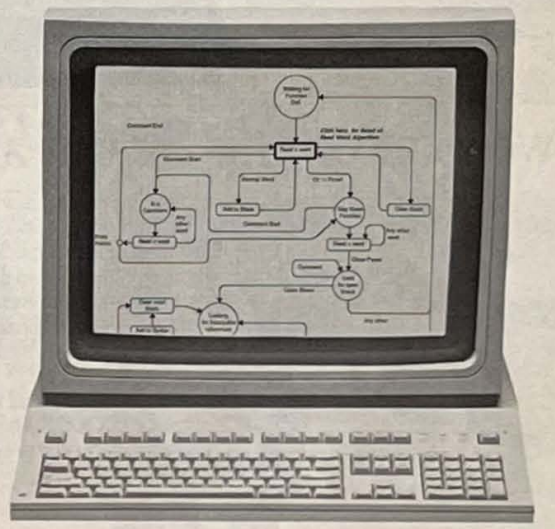

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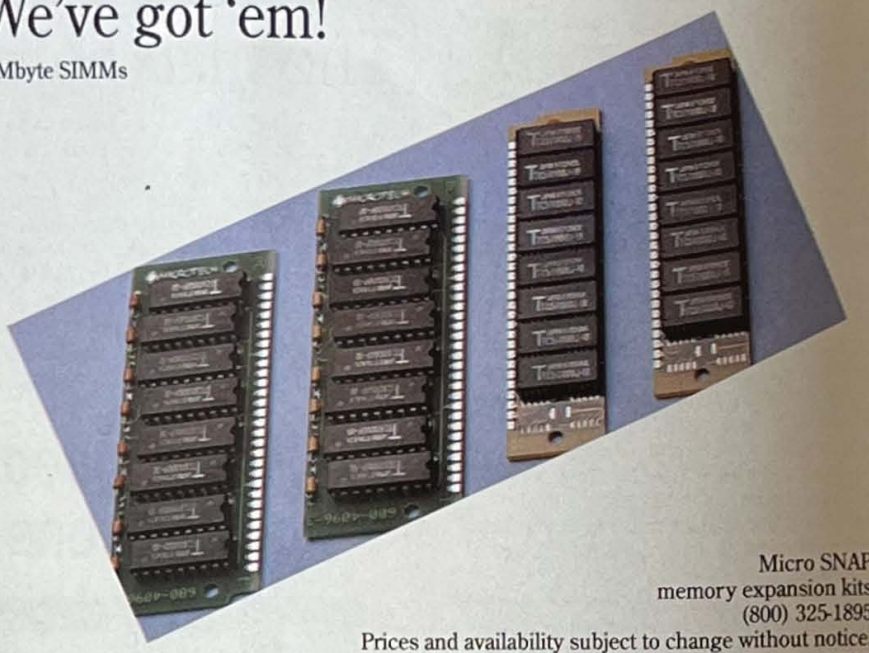

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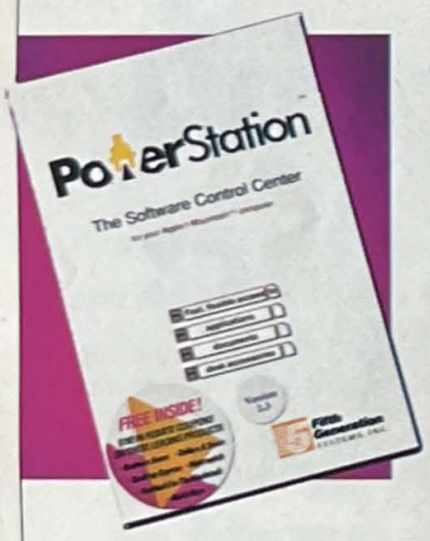


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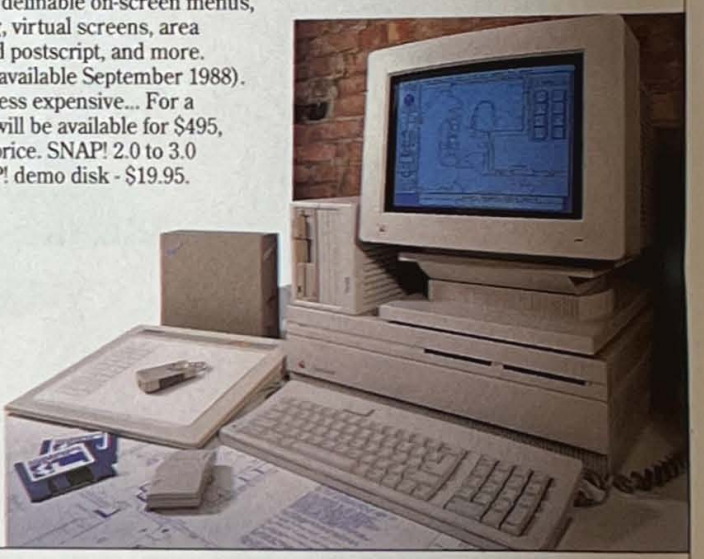

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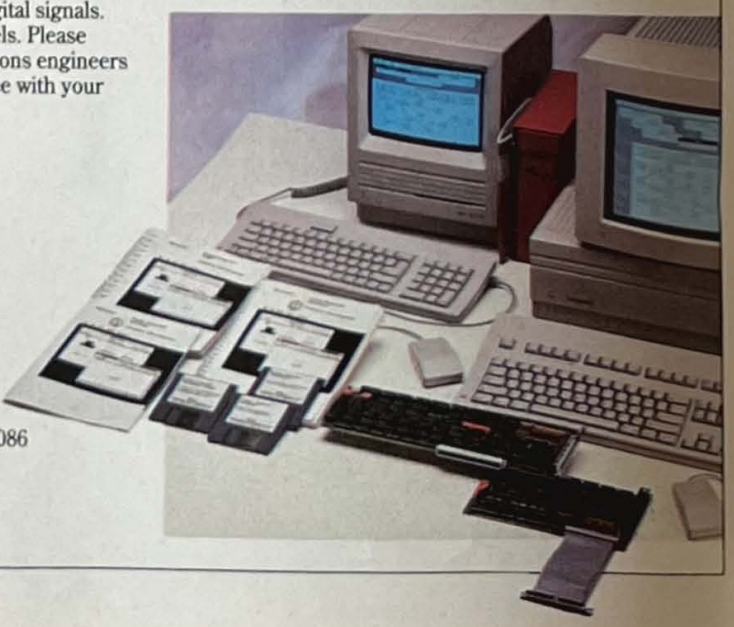

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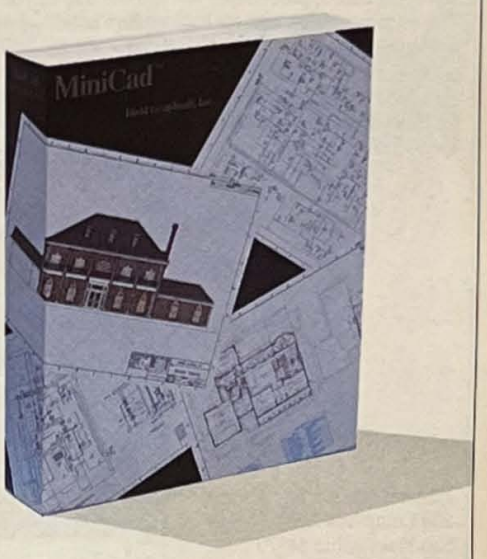


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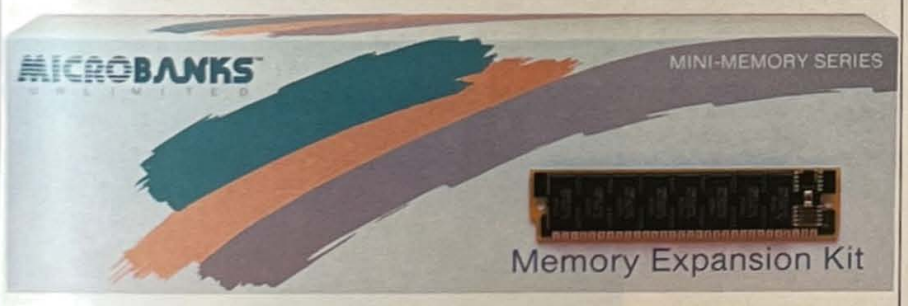


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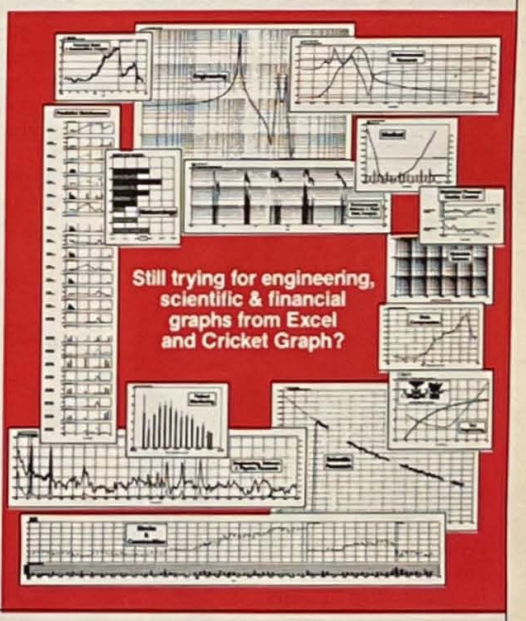


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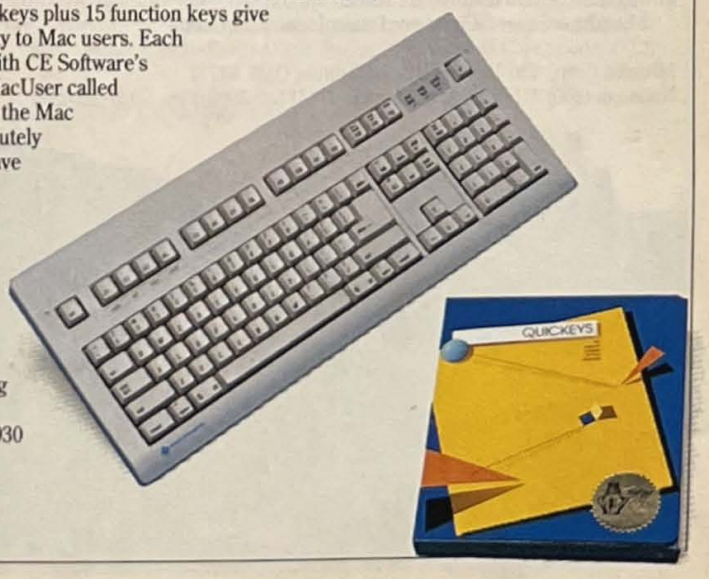


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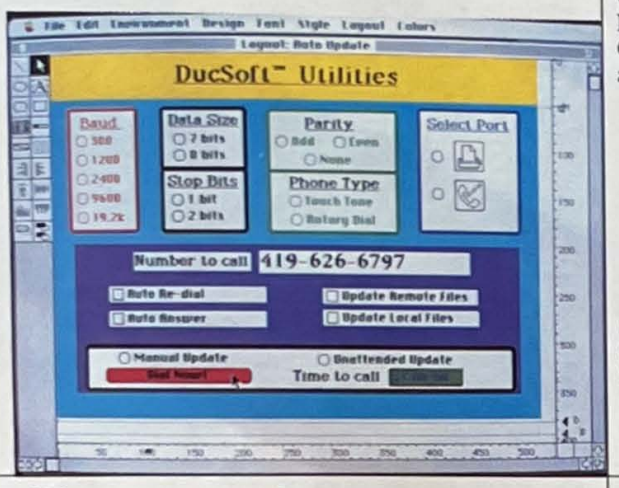


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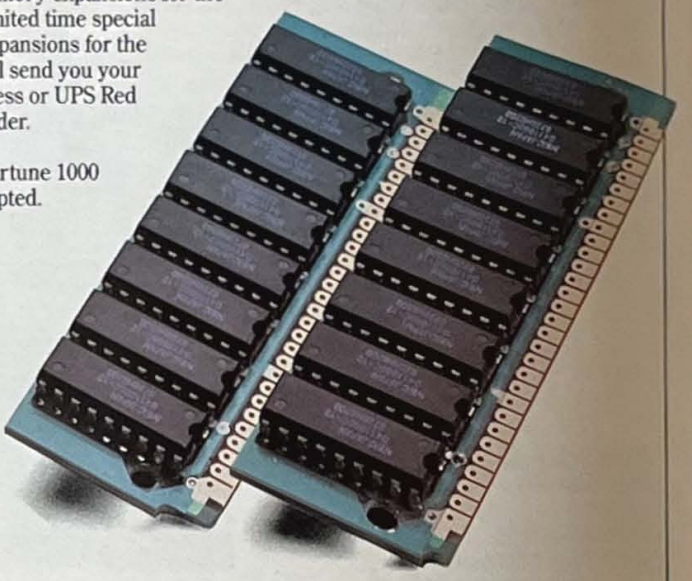

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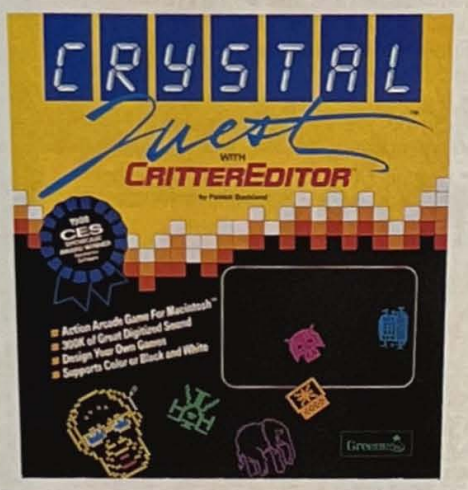


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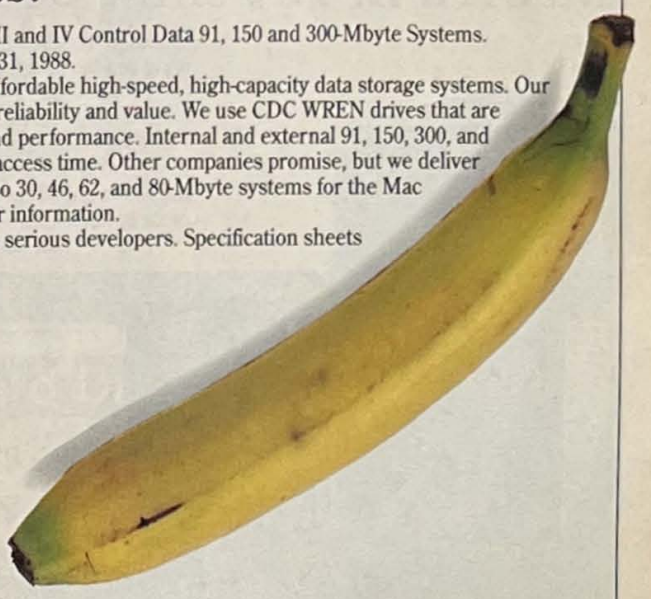

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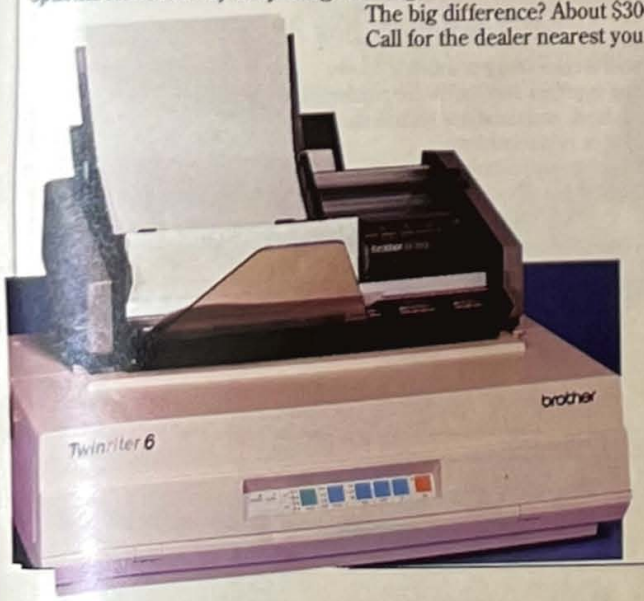


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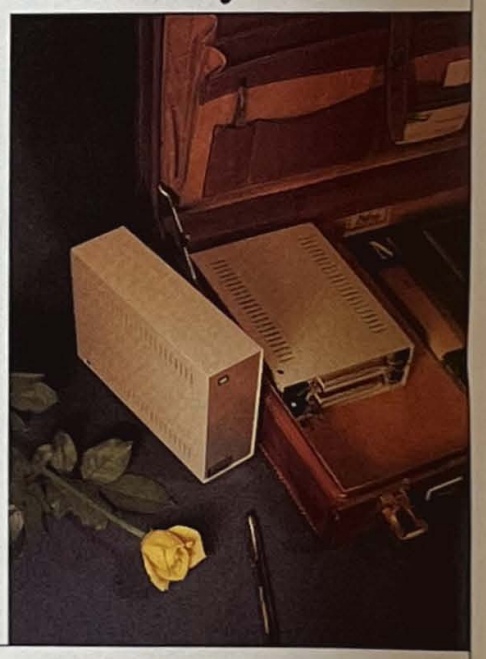

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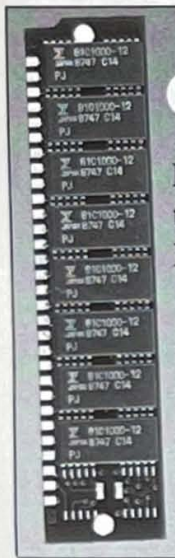

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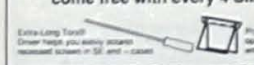

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| September 27 | Desktop Publishing, Communications<br>Closes September 19 |
| October 4 | Utilities, Vertical Markets<br>Closes September 26 |
| October 11 | Graphics Boards, Connectivity<br>Closes October 3 |

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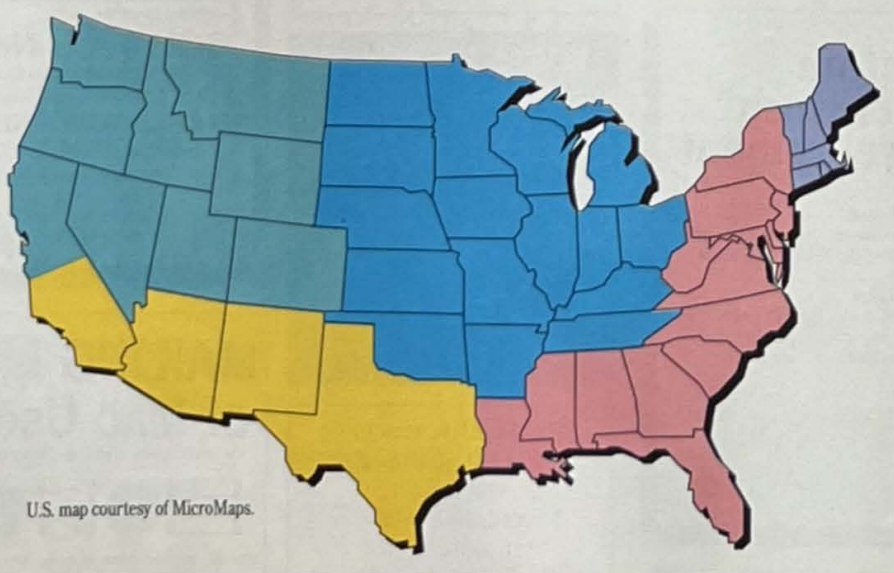

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| September 13-16 | **Microprocessor Software, Hardware & Interfacing: Hands-On Introduction** (Washington, DC) *Contact:* Integrated Computer Systems, (800) 421-8166 |
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| September 13-16 | **Relational Databases: Design, Tools & Techniques** (San Francisco) *Contact:* Integrated Computer Systems, (800) 421-8166 |
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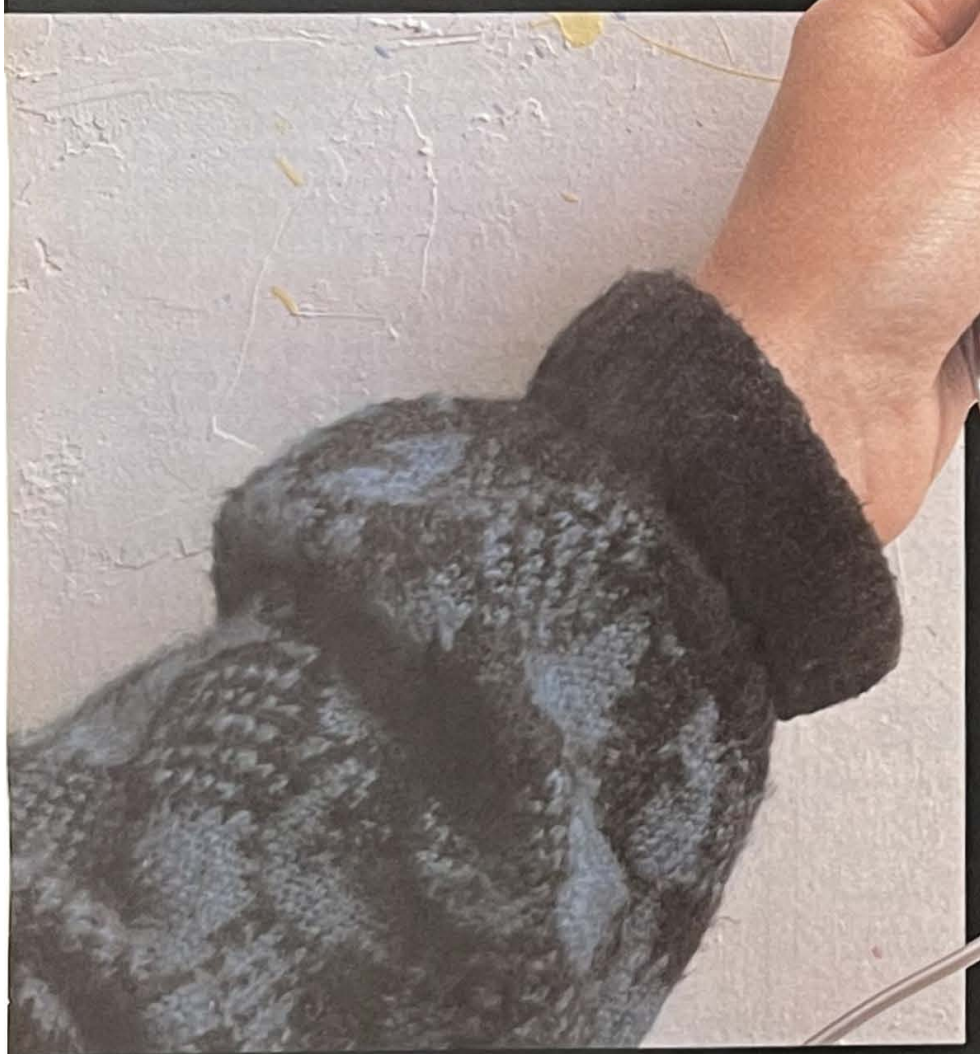

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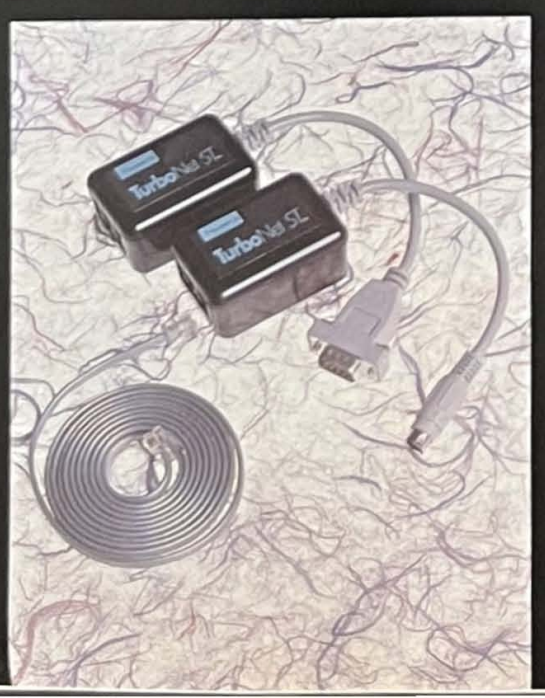


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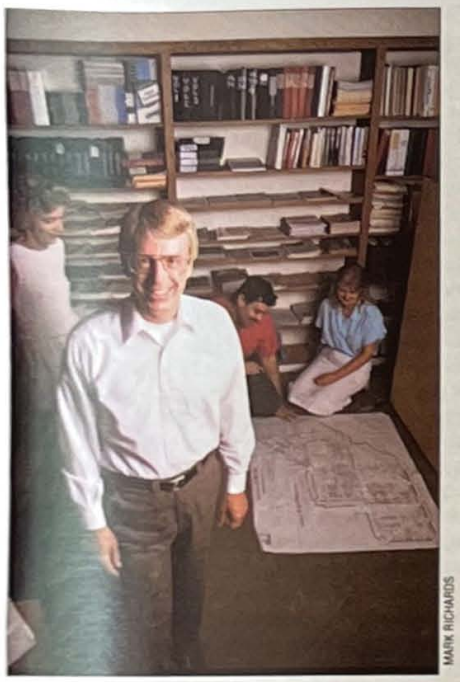
# Seybold show to hit the road

## *Leaves Santa Clara for San Francisco*

BY CLAIR WHITMER

SANTA CLARA, Calif. — This is the third and last year for the Seybold Desktop Publishing Conference.

Next September the show will reemerge with a new name and location. Attendees will be signing up instead for the Seybold Computer Publishing Conference and Seminars, which will be held in the commodious Moscone Center in San Francisco, well-known to Mac users as the site of the January Macworld Expo.



MARK RICHARDS

**Jonathan Seybold said changes reflect the fusion of desktop and electronic publishing.**

The changes are a reflection of both the show's own success and changes in the marketplace since 1985, when desktop publishing became Apple's main marketing buzzword.

The Seybold Desktop Publishing Conference has never intended to be Macintosh-exclusive but has opened its arms to all vendors. Nevertheless, Apple's traditional eminence in this area has kept the show heavily dominated by Mac users and Mac announcements.

This year for the first time, however, the list of exhibitors for the show includes high-end hardware vendors such as workstation manufacturer Sun Microsystems, European electronics giant Siemens and scanner manufacturer ECRM — companies that in the past may have fit more comfortably in Seybold's Electronic Publishing show in March.

"The market is merging into one force. A lot of exhibitors will announce products that go up to the next level of functionality and approach what traditional publishers do with their applications," said Kevin Howard, marketing manager for Seybold Seminars, based in Malibu, Calif.

Jonathan Seybold said that the show's new name and growth reflect several important trends: a merging of the "professional publishing" field with desktop publishing and a gradual recognition of computer publishing as part of mainstream computing. "Publishing is a computer application," Seybold said.

The new names on the list, particularly Sun's appearance, support his other prediction that the three main hardware platforms — DOS, the Mac and UNIX workstations — are beginning to merge. The convergence can be traced at least in part to many of the requirements of publishing systems, such as networking and multi-user and multitasking operating systems. The relative merits of the three operating systems and the relationships among them will be debated in a seminar session titled "Mac vs. PC vs. UNIX."

The influence of desktop publishing, a phenomenon that was originally labeled a fad by some industry pundits, can be seen in the introduction of several publishing-related products for the Sun platform, including a WYSIWYG composition package and the first illustration software.

Despite the convergence and the September show's name change, the two Seybold publishing exhibits will continue to be differentiated, with the September show still concentrating on the microcomputer and its related systems, and the March Electronic Publishing show remaining a forum for high-end dedicated systems.

Aside from the kind of broad, long-range trends that Seybold specializes in, the show is also growing in bottom-line marketing importance for vendors of all technical creeds. More than 50 announcements of new or upgraded products have been scheduled for this week, a figure that the Seybold people reveal with pride.

The importance of seeing and being seen at Seybold is also reflected in the growing number of exhibitors and attendees who will flock to Santa Clara this week. Show floor space sold out around Memorial Day, leaving a list of more than 25 companies that had to be turned away. Estimates of 12,000 to 15,000 expected attendees from 37 countries are conservative, according to Seybold organizers; last year's show pulled in 10,000. Even the seminar sessions sold out three weeks prior to the event. The list of 90 speakers scheduled for the three-day event is also studded with names of stars like Scott McNealy of Sun and Steve Jobs of NeXT.

After having to turn away both vendors and seminar registrants, Seybold employees think the move to Moscone Center couldn't come too soon. Floor space will be expanded by 30 percent next year. In the past three years, "the Mac has always had the lead," said Seybold, but as the show expands its size and scope, the Mac may have to jockey to remain the No. 1 machine at next year's Computer Publishing Conference. □

# Nuvo injunction request against Jasmine denied

BY EMILY BROWER

SAN FRANCISCO — U.S. District Judge Robert H. Schnacke late last month handed down his first ruling on the copyright dispute between hard disk vendor Jasmine Technologies and utility software developer Nuvo Labs, denying Nuvo Labs' request for a preliminary injunction.

"I have to be able to find that the plaintiff has some likelihood of prevailing on the merits in the case, and I must confess that on the present showing I can't make that finding," said Schnacke at an Aug. 26 hearing.

Nuvo Labs of San Luis Obispo, Calif., had sought the injunction to prevent Jasmine from shipping DriveWare, a package of hard disk utilities that includes disk-partitioning software that Nuvo Labs claims infringes on its copyrights.

But after denying the injunction, the judge said that he would "issue an appropriate order that there should be no false claims of exclusive ownership" over those portions of Jasmine's DriveWare for which Nuvo Labs also claims ownership. These portions, according to testimony at the hearing, are limited to C-Tools, a set of programming routines written in C by programmer Arthur Britto.

During the hearing, Schnacke said that C-Tools, which Britto wrote while he was working for Nuvo Labs, is the contested portion of Jasmine's software. "The question is whether Britto was working under direction or whether he was doing this on his own," said Schnacke, referring to the development of C-Tools.

Jasmine representatives said they believe that the hearing has resolved the case or at the very least redefined the dispute as one between Nuvo Labs and Britto, not Nuvo Labs and Jasmine.

"Obviously the court has ruled decisively on this issue in a manner that we feel is appropriate," said Marcia Mason, Jasmine's senior director of marketing and sales.

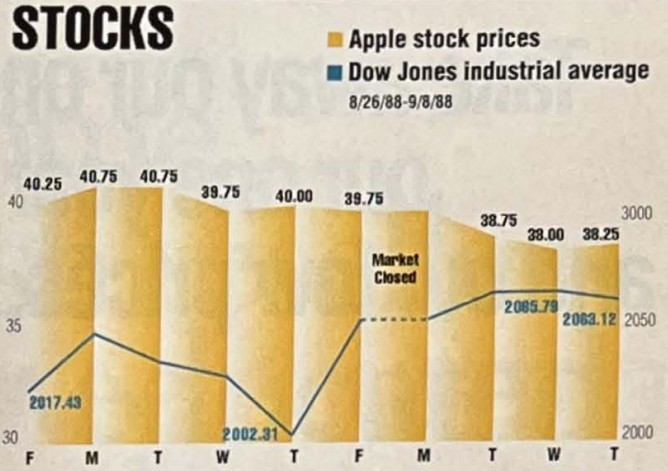
A trial date has been set for Nov. 4, and Dave Nelson, Nuvo Lab's president, is confident about his next appearance in court. The plaintiff released a statement after the hearing referring to the judge's oral comments in the courtroom about false claims of exclusive ownership of C-Tools as an "injunction."

"This injunction is the first step on our way to regaining control of our software," said Nelson. □

# THIS WEEK


- Seybold show moves to San Francisco, this page.
- Judge denies Nuvo request for injunction against Jasmine, this page.
- Dealers try strategies to cope with DRAM shortage, Page 68.
- Macintoshes may miss the action with the Army, Page 69.


## STOCKS

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| BUSINESSLAND | 11.50 | 11.63 | +1.09 |
| MICROSOFT | 50.00 | 51.75 | +3.50 |
| MOTOROLA | 42.00 | 41.13 | -2.08 |
| QMS | 7.25 | 7.38 | +1.72 |
| SEAGATE | 9.00 | 9.00 | 0.00 |
| 3COM | 17.5 | 17.38 | -0.71 |
| **DOW JONES** | **2002.31** | **2063.12** | **+.03** |

## MARKETWEEK

### Mac lags behind in instrumentation

The Mac's market share has grown relatively slowly in the instrumentation and data acquisition field. Overall, this market is growing rapidly, as personal computers are increasingly adopted for such purposes in preference to stand-alone test equipment. The Mac, however, is an extremely low third behind MS-DOS and UNIX in the computer-based instrumentation market. With several vendors of Mac instrumentation and data-acquisition boards and software bringing out sophisticated new products, however, the Mac may soon grab a larger share of this booming market (see related story, Page 16). □

# Dealers try strategies to cope with DRAM shortage

CHANNEL NEWS

BY WILL McCLATCHY

Faced with long waiting periods for memory modules from Apple, dealers are turning to middlemen, putting customers on waiting lists or simply turning them away. Prices, however, are softening slightly, indicating possible stabilization of the volatile DRAM market.

Ted Woodfin, store manager at ComputerTown in Nashua, N.H., is currently telling customers to expect a wait of 13 weeks for Apple's 1- and 2-Mbyte memory expansion kits for SEs and Mac IIs. The situation is undoubtedly causing some customers to take their business elsewhere, he said, but it can't be helped.

A previous attempt to purchase reliable memory through a middleman failed, so Woodfin has adopted the policy of referring time-pressed customers to other dealers or to one of the many mail-order houses that specialize in memory upgrades. "We are dealing with a back-order situation as opposed to trying other people's memory," he said.

Other dealers claim to be selling plenty of memory when they can get it from independent distributors.

"I went through a period of time when I told people I couldn't get enough memory," said David Schulz, owner of University Computers Inc., a Mac peripherals vendor in Chicago. Now he has found a steady supply through an independent memory distributor.

"The local Apple dealer [near University Computers] quotes less than what I am quoting, but it doesn't have any," he said.

Officials at Schulz's SIMM distributor, Newer Technology of Wichita, Kan., said Schulz's store is not an anomaly. "We've had hundreds of calls [for volume orders] in the past few weeks," said James Wiebe, president of Newer. "They are universally coming from dealers because they can't get memory from Apple."

In a market that "didn't exist last summer," Newer is "100 percent selling out of everything" despite an aggressive purchasing program, Wiebe said. And Newer is only one of many companies hawking memory at computer expositions and through ads in the back of magazines and newsletters.

Continued strong demand, however, has not resulted in price increases. If anything, prices have softened a bit, which semiconductor analysts attribute to steady increases in production by Japanese chip makers. SIMMs using 1-Mbit surface-mount chips have seen the greatest decline in price in recent weeks, industry players have said.

Mike Frost, manager of Technology Works, a mail-order memory vendor, said price points have changed significantly in the past two or three weeks. Retail prices for 1-Mbyte surface-mount SIMMs have dropped below $400 from about $425 to $450 from large-volume mail-order companies such as his. Whereas SIMMs with DIP chips, which are ordinarily larger and more power-hungry than the newer surface-mount style, were sometimes $100 cheaper, they now cost only a few tens of dollars less, he said. "We are coming to the point when surface mount will be available and competitive with DIPs," he said.

Frost confirmed that the smaller packaging of surface-mount SIMMs makes them preferable in many cases. DIPs, for instance, can obstruct an accelerator card in the Mac SE and a full-height 5.25-inch hard drive in the Mac II. The reliability and functionality of the chips should otherwise be identical.

Whatever their strategy with memory, dealers agreed that HyperCard, MultiFinder and the high prices of recent months have created a latent demand, one that will come rushing forward if prices continue dropping. Conversely, they have said that this latent demand may help to keep prices firm if standard supply-and-demand economics holds sway.

"There are a lot of people who have been waiting for the prices to come down to realistic levels," said Frost. "I think a lot of people will be buying. We expect enormous demand."

Woodfin concurred that memory has demonstrated price elasticity. "There is no question the high prices are keeping people away," he said. "Personally, I wouldn't pay that much for memory. I would wait."

Schulz said the fact that many Mac owners have heard of the memory shortage has itself affected demand. "It's almost as if people stopped asking for it because the word was that it was not available." □

## Judge in hot water again

SAN JOSE, Calif. — Judge Robert Aguilar, the U.S. District judge in charge of the Apple vs. Microsoft and Hewlett-Packard case, is embroiled in yet another controversy. The San Jose Mercury News reported last week that the jurist had received a $10,000 loan from longtime friend and casino operator Ronald Cloud, who was later convicted of two counts of bank fraud and conspiracy. The report said the sum is payable only after Aguilar's death.

Aguilar denies any impropriety, on the grounds that Cloud never appeared in his courtroom and that there was no quid pro quo. Several legal ethics experts agreed, but questioned Aguilar's judgment in the matter. □


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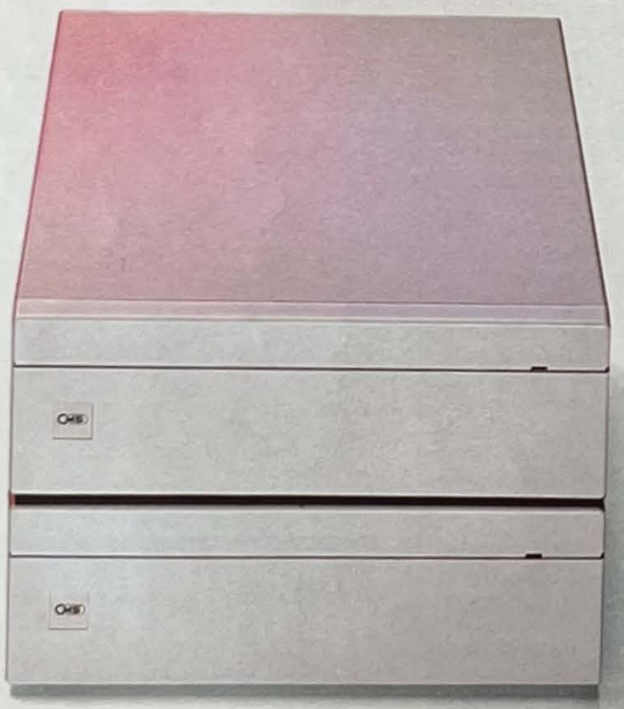

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# Macs may miss the action in U.S. Army

## *Doubts about future of Plus delay development*

BY JONATHAN PERROW

WASHINGTON — Apple's well-publicized march into the federal market is meeting some resistance from the U.S. Army, and both camps claim the other is responsible.

A training system that would permit the Army Reserve to share instructional materials interactively with off-site classrooms is the point of contention. While the Army's first choice reportedly is to put a Macintosh Plus on every trainee's desk, the Mac may be missing in action by the time the Army's final decision is made.

"I've given Apple every opportunity to bring in the Mac," said Lt. Col. James Cary, director of the reserve component for instructional information management systems at the Pentagon, "more than ample opportunity, and Apple keeps stalling."

Cary said Apple is on the brink of losing out to Zenith or AT&T, which are also bidding for the contract.

"The Army expects more from the Mac than from any MS-DOS machine," said Dennis Strater, Apple's federal account manager in charge of the Army account. "But to get the Mac to where they know it can be, nobody wants to fund it."

Indeed, the question of who is going to fund development of training software for the project seems to be the biggest holdup. Optel Communications Inc. of New York, developer of a sophisticated MS-DOS training program called Telewriter 2 PC, is currently negotiating to write a Mac II version of the product. Optel's software, sources said, reportedly would fill the bill for the Army Reserve project. But neither Apple, the Army nor Optel is eager to spend the money to rewrite it for the Mac Plus, according to Abe Zelkin, president of the New York-based company.

"Apple told me the Mac Plus was going to be phased out," he said, "and I don't want to put money into rewriting our software for a machine that isn't going to be around for very long."

Optel manufactures the Voice Too modems, which the Army is considering for the contract. The modems are capable of transmitting voice and data simultaneously, according to Optel.

Arguing that Apple has "done everything we said we would do," Strater said the Army originally just asked for low-priced terminals, and Apple sent it 30 Mac Pluses for evaluation at no charge. Then the Army's demands changed, he said.

"All of a sudden, they're talking about a $600 or $700 modem and $600, $700 or $800 software," Strater said. "And nobody wants to fund that project."

The Army is seeking a system that would allow expert trainers to conduct classes over telephone lines to members of the Army Reserve and National Guard in classrooms or at home.

The system currently sought by the Army includes the Optel modem and possibly products from Farallon Computing of Berkeley, Calif., and AT&T, among others.

Eventually, between 40,000 and 50,000 Macintosh Pluses could be installed, though that number may rise to around 100,000, according to Mel Laney, president of Mel J. Laney & Associates, whose company's training software, called MLA Teacher, is also up for the contract.

Training the rapidly growing number of personnel at more than 6,000 camps, posts and stations of the Army Reserve is an increasingly difficult task, with much of the material quickly becoming outdated and most of it administered without experts on hand to answer questions, Laney said.

"The bottom line," according to Cary, "is that there are 2 million [members of] the reserve component that need the instruction from Macintoshes, and they aren't going to get it." □

## Individual Software acquires Macropac

CUPERTINO, Calif. — Macropac International, developer of 101 Macros for Excel, 101 Scripts and Buttons for HyperCard, and several macro add-on packages for MS-DOS applications, has a new owner. Individual Software, a San Carlos, Calif.-based company that markets an extensive line of training programs for the PC, announced last week that it acquired the 2-year-old macro publisher, which was formerly headquartered here. Terms of the deal were not disclosed.

"Our major distributors are looking to expand their offering of add-on PC and Macintosh products. With our record growth in 1987 and its continuance in 1988, we are in a very strong position to build market presence through acquisitions of companies that have products that fit well with ours," said Jo-L Hendrickson, founder and CEO of Individual Software. □


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Apple rumors are all over the map this week, starting with the '030 Tower workstation. The obvious question is how will Apple support the high-end applications needed to make it a success in the market. The word on the street is that Apple will create another subsidiary, or "spinout" in Apple's peculiar corporate speak, modeled after Claris.

Apple is finally giving its beleaguered dealers some relief from the intense price competition in the personal computer retail market, putting some muscle behind its commitment to the dealer channel. On Sept. 22 Apple is scheduled to announce an incentive program designed to give high-support dealers additional discounts. Discount points will be earned for having an educational representative, state and local government representatives, and a certified technical staff among others. With the new program, the fully configured dealer should be able to achieve a maximum discount level of 46 points.

**Operating system news.** The tentative release date for the next-generation Macintosh OS, currently known internally at Apple as "Snarc," has been discovered. Sometime in the first quarter of 1990, Mac users should be able to boot the new OS while simultaneously running traditional Mac and A/UX applications.

In addition to the two companies, Digital F/X and Phototonics, in which Apple has recently invested, the company's Strategic Investment group also has its eye on a New York-based company that currently develops animation software for the Atari ST. The Cole Gilburne Fund is also said to be examining the same prospectus.

While everyone is caught up on the spreading Mac II '030 frenzy, Motorola is in the prototype phase of a NuBus '040 board. At this stage, the board features built-in Ethernet and four serial ports. Speculation is that when the product is finally introduced, it will be from another, as yet unselected, developer.

**Network news.** What good is a network without E-mail? That's the question lately at Sun, which seems to be quite serious about its drive to dominate the desktop network market. Sun's TOPS division is negotiating with Symantec for the purchase of InBox, which is a logical move considering that except for Microsoft Mail, InBox is the only shipping product that works on both the Mac and the PC.

Part of Symantec's interest in selling InBox is the strong competition from Microsoft Mail. A sales rep armed with TOPS and bundled InBox might do better than one with only one of the two products when knocking on corporate doors.

Lest anyone doubt the importance of E-mail to network marketing success, remember that the voice E-mail system under development at Farallon is part of that company's grand plan to knock out TOPS as the leader in networking solutions. Farallon already has a bevy of programmers working on the product with release targeted for next year.

Other news from TOPS is that the long-anticipated FlashTalk AppleTalk speed-up product may never reach the market. The reason given by insiders is that, on the Mac, FlashTalk is slower in some situations than AppleTalk. In addition, they say the AppleTalk code is as tight as can be, leaving little room for improvement from that angle. No word on how Dayna, which is working on a similar product, is getting around these limitations that seem to have the TOPS engineering staff stumped.

On the CAD market, CADAM, the Burbank, Calif.-based CAD developer, has yanked development on a Mac interface to its IBM/VM and VMS product, also called CADAM. Conflicting reports have been received about why development was halted. The sinister view is that it decided to take the project in-house at the expense of the outside developer it was using for the project. The less-sinister view is that CADAM's president "wears blue underwear," as one informant stated.

**At what price?** Here's a clarification of earlier information about the Motorola processor-based consumer electronics product being developed by Andy Hertzfeld and Burrell Smith, designers of Radius wares: The '030 box, with styling by Frog Design, will accommodate all manner of peripherals, such as a Mac. The backers of the venture are said to be paying the dynamic duo a total of $1.4 million for the project, with the lion's share of the funds going to hardware-wizard Smith.

Meanwhile, Radius is readying a dramatic price reduction on its original Mac product, the Radius Full Page Display. Insiders are saying the retail price will drop from the current $1,795 to less than $1,000. No word from Radius marketing about the obvious negative effect the new bargain-basement price will have on the product's yuppie-appeal factor.

Some speculate that Apple chose Sept. 19 as the Stratos release date just to take the wind out of the sails of NeXT, which was also scheduled to make an announcement at that time. But NeXT, rapidly becoming one of the most consistent procrastinators in all of Silicon Valley (and No. 1 contender for the International Phil Lipetz Product Delay Award), postponed its announcement once again. Some developers report that they still haven't received NeXT workstations, and there are indications that even once production starts, the machine will be in very short supply for a year or more.

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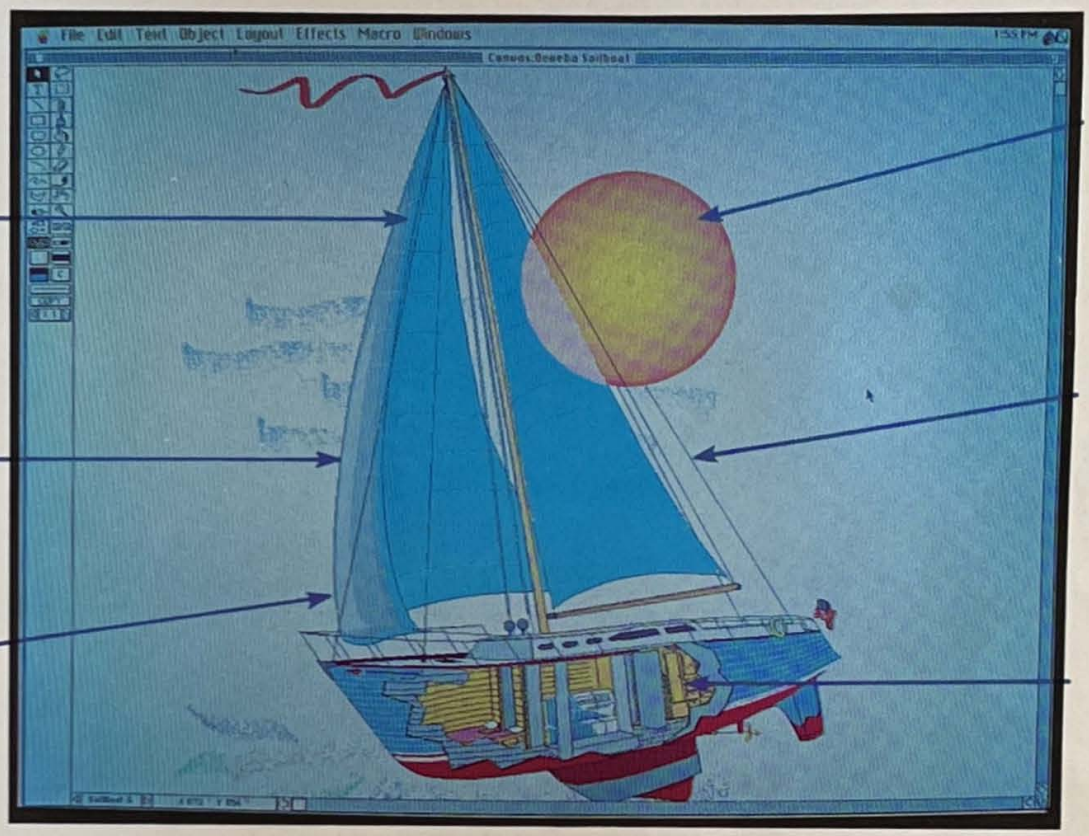


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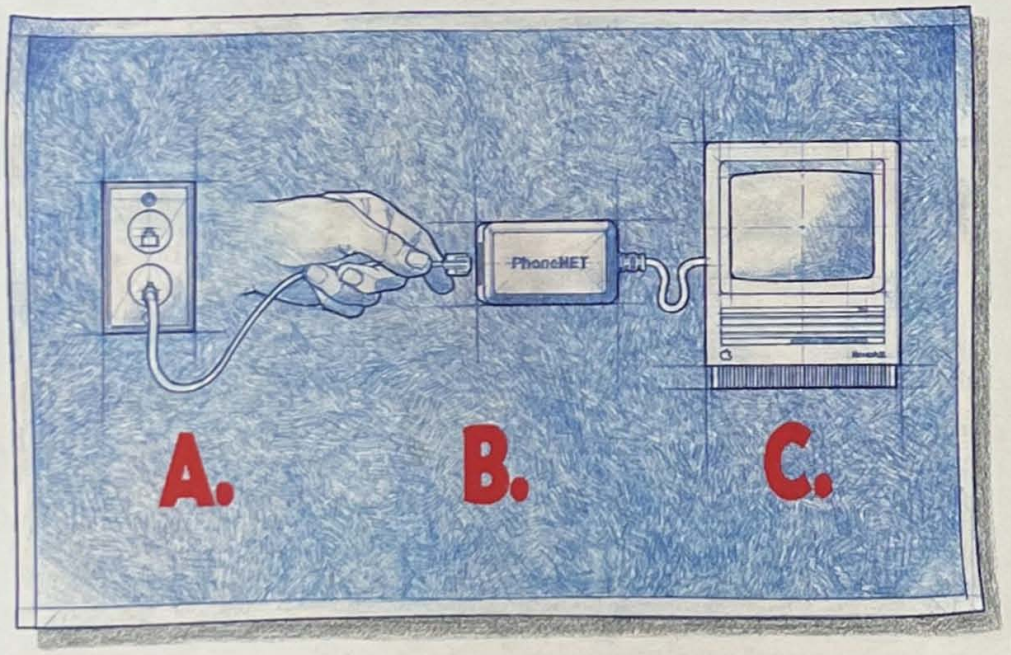


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